Grand·Prix INTERNATIONAL

CANADA

BMW BOOSTS NELSON EITHER WAY IT'S BRABHAM

M 1484 - 50 - 13 F

N° 50 - JUNE 18th 1982 - GREAT BRITAIN £ 1 - CANADA 3$50 - IRL £ 1,40

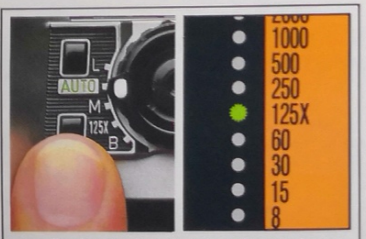
Pentax ME Super.

Super. Because it has all the best features. Plus one.

The Pentax ME Super is a complete, top-level Auto/Manual SLR, with an additional feature – a unique electronic manual control – that makes it a complete, versatile camera. A true, dual control system... superfast, super simple, super accurate.

Electro-touch pushbuttons give you fingertip control of the shutter speed for easy, professional style creative manual control. Without ever having to take your eye away from the viewfinder.

Then, of course, it has the superfast 1/2000 sec. top shutter speed. And the all-metal Seiko MFC-E2 shutter. GPD metering cells for precise, accurate exposure. A super bright viewfinder with brilliant LED shutter speed indication. The ME Super is part of a complete professional system including dedicated electronic flash, a rapid-fire Auto Winder and one of the most complete lines of lenses and accessories anywhere.



Exclusive electronic speed control. Feather light pressure on electro-touch pushbuttons adjusts shutter, in either direction, for rapid, precise manual speed selection. Follow the changing LED in the viewfinder until it reaches the speed you want.

All in the smallest, lightest Auto/Manual, with the well-known easy-handling Pentax quality. Pentax ME Super – the only camera in the world with this unique combination of super features.

PENTAX
ME super

NEW

Marlboro 100's
Tall red pack
Smooth flavour too.
Extra long
so you can stay
longer in
Marlboro Country.

PM INC
VERI VIDI VICI

Marlboro
100's
20 CLASS A CIGARETTES

EXTRA LONG 100's

LOW TO MIDDLE TAR As defined by H.M. Govt. DANGER. H.M. Govt. Health Departments' WARNING: THINK ABOUT THE HEALTH RISKS BEFORE SMOKING

ARE YOU WELL BRED FROM AN IMPRESSIVE STABLE? DO YOU LEAP INTO LIFE FIRST THING IN THE MORNING?

COAST OVER PROBLEMS WITHOUT A MURMUR? TAKE A LARGE BOOT SIZE?

HAVE A SILKEN FEEL AND A PLEASING EXTERIOR?

ENJOY THE CHALLENGE OF A LONG AND WINDING ROAD? ARE YOU ROUGH ON THE OPPOSITION AND SMOOTH ON YOUR FRIENDS?

DOES YOUR MECHANISM RESPOND TO THE FAINTEST TOUCH OF A FEMININE HAND?

ARE YOU SOBER, UPRIGHT, RESTRAINED AND HONEST?

AND COULD YOU WIN AN EXECUTIVE OF THE YEAR AWARD FOR TWO YEARS RUNNING?

VOTED BY 'WHAT CAR?' BEST EXECUTIVE SALOON FOR TWO YEARS RUNNING.

PEUGEOT 505

TAKE PRIDE IN PRECISION

Full leasing details available from Peugeot Fleet Sales, PO Box 46, London Road, Ryton-on-Dunsmore, Coventry.

For the address of your nearest dealer check Yellow Pages. Diplomatic, Nato and personal export inquiries Peugeot Park Lane 63/67 Park Lane, London W1Y 3TE. Tel: 01-499 5533.

Put your foot down in the new BMW 635 CSi and you won't find it wanting.

It can, after all, accelerate from 0-60 in 7.4 seconds and top 142 mph.*

But for BMW *how* a car performs is a far greater priority than sheer out and out performance.

Which is why the BMW coupés have undergone a number of significant changes.

There's a totally redesigned suspension system. (Arguably the most advanced suspension in the world.)

And, on the 635 CSi, Michelin TRX extra-low profile tyres.

Which means it can be driven hard into a corner and still keep a perfect line.

For safer high-speed driving there are BMW's unique two stage headlamp reflectors for brighter low-beam lighting.

And the most advanced braking system in the world: ABS. A system that allows a driver to brake and steer at the same time without the wheels locking.

Then there's a redesigned 3.5 litre engine which, while offering faster acceleration and a higher top speed, is actually 9.4% *more* economical.

And a redesigned cockpit containing the latest BMW electronic technology to aid the driver:

An active check control to monitor seven key functions.

A service interval indicator which adjusts service intervals to the way you drive.

A fuel consumption indicator.

Even an on-board computer.

Ironically, about the only thing we haven't given the new 6 Series, be it the 628 CSi or the 635 CSi, is the one thing ordinary motor manufacturers are only too eager to give their 'new models'.

A facelift.

But on this our designers were adamant. They could possibly make the cars work better. But look better? Hardly!

THE ULTIMATE DRIVING MACHINE

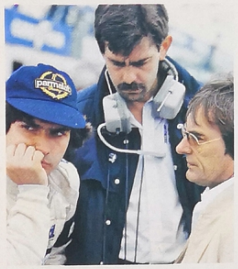
THE NEW BMW 6 SERIES. FROM £17,895 FOR THE 628 CS TO £22,950 FOR THE 635 CSi. PRICES, CORRECT AT TIME OF GOING TO PRESS, INCLUDE CAR TAX AND VAT BUT NOT DELIVERY OR NUMBER PLATES. INCLUSIVE DELIVERY CHARGE INCORPORATING BMW EMERGENCY SERVICE AND INITIAL SERVICES £160 + VAT. *Manufacturers figures. FUEL CONSUMPTION FIGURES, URBAN CYCLE: 18.0 mpg. 56 mph: 39.2 mpg. 75 mph: 33.1 mpg.

FOR A NEW BMW 6 SERIES INFORMATION FILE, PLEASE WRITE TO: BMW INFORMATION SERVICE, P.O. BOX 46, HOUNSLOW, MIDDLESEX, OR TELEPHONE 01-897 6665. (LITERATURE REQUESTS ONLY). FOR TAX-FREE SALES: 56 PARK LANE, LONDON W1. RING 01-629 9277.

IN THIS ISSUE:

PAGE 8
PADDOCK NOTES FROM MONTREAL

PAGE 10
NELSON THROWS A DOUBLE SIX



Bernard Ecclestone's team dominated the Canadian Grand Prix, though the order at the flag surprised even the team itself. Mike Doodson recounts the first win for the BMW turbo, unhappily blighted by another race tragedy.

PAGE 14
EXTRA, EXTRA

From the back rooms of regulations-making to the world championship leader.

N°51 (HOLLAND) WILL BE ON SALE ON JULY 8, 1982

Grand Prix international

PAGE 16
PRACTICE

Spoiled by unseasonable rain Friday, Didier Pironi set a fantastic pole time Saturday in a Ferrari with revised suspension.

PAGE 18
THE RACE

It started with a horrific crash and ended with a stunning victory for Brabham and the first triumph for the BMW turbo engine.

PAGE 22
RACE STATISTICS AND LAP CHART

PAGE 24
POST CARD FROM MONTREAL

PAGE 26
NIGEL BENNETT: ON THE BOTTOM RUNG

Maurice Hamilton talked to the creator of the new Ensign N181. He spoke of his hopes and of the problems of a small team trying to make it to the top, creativity being one thing, money another.

PAGE 30
PATRICK TAMBAY: FOLLOWING GILLES

Didier Braillon managed to catch Ferrari's newest recruit between Detroit and Montreal. Tambay explained the moving psychological context of his new chance in Formula 1.

PAGE 34
THE GRAND PRIX IN PICTURES

PAGE 46
PORTRAIT: MANFRED WINKELHOCK

It was not his weekend at Montreal, but the German driver was still on a high from his excellent showing at Detroit when he talked to Didier Braillon.

PAGE 50
NELSON'S COLUMN

PAGE 51
COCKPITS

PAGE 54
RICCARDO PALETTI

Five weeks after Gilles Villeneuve, and at the circuit named in his memory, another Grand Prix driver is lost.

GRAND PRIX PUBLICATIONS Ltd 6. York Street, London W1H 1FA. Tel : 01.486.1277. Telex : 267509 LOGMAN G. PUBLISHER AND PUBLISHING DIRECTOR : Michel A. Konig. ASSOCIATE PUBLISHERS :Michel Hommel, Graham Rogers. INTERNATIONAL COORDINATION : Doreen Rogers. FINANCIAL CONTROLLER : Ivor Olley. ADVERTISING MANAGER : Robin Goodman. SUBSCRIPTIONS MANAGER : Sarah Redmond. CHIEF EDITOR : Keith Botsford. DEPUTY CHIEF EDITOR : Didier Braillon. EDITORIAL : Mike Doodson, Bob Constanduros, Giorgio Piola, Mario Luini, Michelle Dubosc, Xavier Chimits, Maurice Hamilton, Heinz Pruller, Jeff Hutchinson. COLUMNIST : Nelson Piquet. ARTISTIC DIRECTOR : Marc Tournaire. EDITORIAL SECRETARY : Regis Lacroix, Martine Fréour, Annie Nédélec. LAYOUT : Pascal Tournaire, Alain Convard, Jacques Gaiotti, Jean Bernard Blanchet. ILLUSTRATIONS : Serge Thomassian, Nicolas Géron, Didier Bussat, Jacques Poirier. PHOTOGRAPHERS : Bernard Asset, A + P. SAM, DPPI, First Line, Vandystadt, Cochin Jacques, Lionel Froissard, John Blakemore. Grand Prix International is published in five languages : English, French, Spanish, Italian, Dutch. PARIS HEADQUARTERS AND EDITORIAL : 7, rue de Lille, 75007 Paris, France. U.S.A. : Long Beach GRAND PRIX ASSOCIATION 110 W, 110 W Ocean Bvd, Long Beach CA 90802. ITALY : Editoriale Arbe s.r.l. via Arbe 10 / 20125 Milano, tél. : 02 / 60.08.26. SPAIN : po Castellana 169, Madrid 16. HOLLAND : Zuidgroep, Postbus 245.2501 CE The Hague. DISTRIBUTED BY : COMAG, Tavistock Road, West Drayton, Middlesex UB 77QE. Tel. : West Drayton 44055. Telex 8813787. Printed in Belgium by Hoorens Printing.
GPI published after each Formula One event (with 2 combined issues). Send change of address to : GRAND PRIX INTERNATIONAL, 110 W. Ocean Blvd, Suite A. LONG BEACH CA 90802. U.S.P.S. 597.330. First Class $72.00 Second Class $52.00.

The paddock in Montreal

NEXT DOOR?

The layout on Ile Notre-Dame is not permanent, the site being used for many other events during the season. Each year the circuit has to be rebuilt: 1982 cost an estimated $750,000. A recent project is to build a completely permanent circuit, including permanent grandstands, on the neighbouring island of Sainte Hélène, the site of the world fair, where a number of buildings are shortly to be demolished.

BRAZILIANS CLASH!

Canadian TV viewers who were preparing to tune in for the Holmes/Cooney heavweight boxing clash from Las Vegas on the Friday evening of the race weekend first saw a brief but fierce match which had erupted in the pits during the afternoon.
The CBC cameraman had focused, purely by chance, on the Fittipaldi car as it entered the pits after a qualifying run. Out climbed Chico Serra, helmet off, who immediately went to complain about a blocking incident by his compatriot Raul Boesel.
Boesel reacted to the lecture with a kick aimed at the departing Serra, who came out of his corner with fists flying. It took six strong men to separate the pugilists... and the TV network had a good match in the can before the bell had even rung in Las Vegas to signal round one of that other, official, contest.

WOLF MAKES HIS RETURN

Four years after his last appearance at his home town race circuit, oil magnate Walter Wolf returned to view the 1982 Canadian GP. Austrian-born Wolf, who claims to have arrived in Canada with only $30 in his pocket, said that he had turned down an offer to act as official starter for this year's race.
Although he owns homes in both Austria and France, Wolf's business base is Montreal. He has interests in supplying the rapidly-expanding Canadian oil exploration industry, including a newly built $150 million vessel specially strengthened to service the Canadian government's oil search north of the Arctic circle.
Although Wolf is best remembered in Formula 1 for his sponsorship first of Frank Williams and then of his own racing team — which in 1977 almost snatched the world championship for Jody Scheckter from Niki Lauda — he was also closely associated with the early career of Gilles Villeneuve.
"The local press has not been very fair with me since Gilles' death," he told GPI. *"I have even been accused of forcing Gilles into racing."*
Despite lying low since he sold his Grand Prix team's assets to Emerson Fittipaldi at the end of 1979, Wolf still has an interest in the little factory in Italy where Gianpaolo Dallara makes F3 cars. He is also supporting the F3 efforts in the British championship of a 23-year-old Canadian who, like himself, emigrated from Europe as a teenager.

WILDCAT STRIKE

Montreal's public transport has the bad habit of going on strike rather more often than the average. Sometimes it's the buses, sometimes the Metro (underground)... and on race day, it was the Metro's turn, to the great anger of the race organizers and Labatt Breweries, the sponsors. For the public, the Metro line ending on the adjoining island of Sainte Helene, linked to Ile Notre-Dame by the Cosmos Bridge, is the only way to get to the Grand Prix, given the understandable absence of any public parking on the two islands. Organizier Norman Legault found a solution by requisitioning 100 school buses, based at three key points in the city, Place Bonaventure, Lafontaine Park and Longueil. These buses, in a non-stop free shuttle, took between 35,000 and 40,000 people to the Circuit Gilles Villeneuve Sunday morning.

ARNOUX vs. WINKELHOCK

It was Friday morning at 11.35 that the Renault of René Arnoux and the ATS of Manfred Winkelhock tangled at the chicane, shortly after the latter started practice late because of the delay in rebuilding his car, taken to Britain after Detroit.
The Renault's front suspension was damaged and the ATS had a badly torn monocoque around the front left suspension. Despite a lash-uprepair in a local garage that was to cost him his qualification, René was the first to get back to the pits after the collision and he was literally raging mad:
"He's completely sick. He was going 60 kph too fast and he simply forgot to brake. He T-boned me at full speed."
An hour later, Manfred, gave us his version, complete with sketch: *"The track was very slightly slippery, Arnoux wasn't on a flying lap and I came up going about 60 kph faster than him. He simply didn't look in his mirrors and turned right to take his normal line into the entry of the zig-zag. I had no room to pass and it was total disaster. I must have put one wheel on the grass and from that moment, the car spun like a top on the grass before going back on the track at the start of the lefthander. That was the moment when I hit the Renault and obviously its driver couldn't be anything but surprised to be hit that way, because he didn't dream for an instant that I was behind him. What's more, once out of his car, he really let me have it..."*

NO THEODORE FOR JACQUES VILLENEUVE

When Norman Legault, director-general of the Canadian GP, Armand Torchia of the Houston Group and journalist Christian Tortora heard of Jan Lammers' accident in Detroit, they sought to

contact Teddy Yip to see if Jacques Villeneuve could drive the Theodore TY02 in Montreal. They managed to raise $80,000 in a very short time but were unlucky not to be able to inform Teddy Yip immediately, as he was on vacation somewhere on the West Coast of the United States. During that time, Yip had contacted Geoff Lees, the 1980 European Formula 2 Champion and a great friend of Sid Taylor and Jack Kallay, and made him a firm offer of the drive. When the Canadians managed to reach Yip, it was too late and nothing could be done. There was talk of bringing a second Theodore from Britain, and the Canadians also talked with other teams about running a third car, but there was not enough time. To the great disappointment of the Canadian fans, who are looking to Jacques to succeed Gilles, he was not able to run. It may have been a blessing, however, because he would have been under enormous psychological pressure, and because much more long-term discussions are in progress for him for next season.

QUOTE OF THE WEEK-END

...won without hesitation by Didier Pironi, who told Canadian journalists during a mini press conference on Saturday afternoon after the final qualifying session. *"It is my first pole-position for Ferrari, and it gives me great pleasure to win it on the circuit bearing the name of the man who was not only my teammate but also my friend. And I dedicate this achievement to him because I know that, if he had still been amongst us, he would have been on pole..."*

DRIVERS vs. JOURNALISTS

GP drivers faced journalists on the Wednesday afternoon before the race on the synthetic turf of the Claude Robillard sports center in Montreal for a "World Cup warm-up" football match.
Patrese, Salazar, De Angelis, De Villota, Boesel, Serra, Giacomelli, Henton, Cheever, Paletti and "Pal Joe," the Osella teammanager, were up against the Latin elite of the journalists, led by a strong pack of Italians and South Americans.
Ragno press attache Daniele Audetto and our colleague Pino Allievi, helped by a local ref., oversaw the game which ended with the drivers winning, 3-2. Patrese was impressively strong allround, Cheever because of his sprint speed, Giacomelli by his ball control and Henton by his perfect amateurism... Among the newsmen, the veteran Franco Lini took the honours from Canadian Christian Tortora, who sometimes got confused with rugby, and France's Gerard Flocon.
The latter was disappointed when his legs gave out when he was at top speed — he gave up smoking shortly before the game in order to get back his youthful form...

LIGIERS FAIL THE TEST

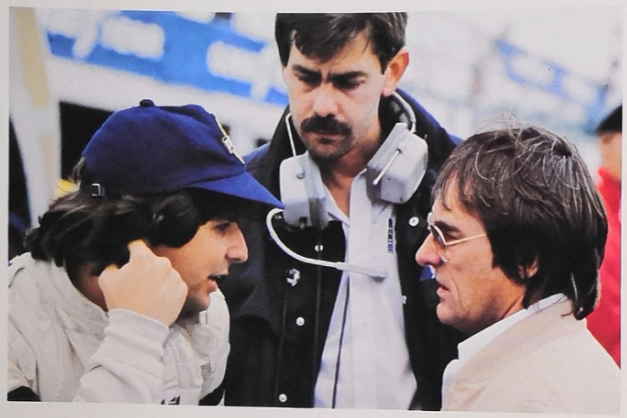
Too late to be reported in the Detroit issue of GPI was the news that both Talbot-Ligiers had been found illegal during post-race scrutineering. The irregularities were described by a Steward of the Meeting as *"only minor,"* but the punishment was enough to take some of the pleasure out of the race for Eddie Cheever and Jacques Laffite who finished 2nd and 6th.
The infractions were all the more surprising in view of the fact that the team had decided to use last year's JS17s instead of the new JS19s, which have also been the subject of some discussion with the scrutineers both in Monaco and Detroit.
In effect, the two Gitanes-sponsored cars were found to be slightly too wide and slightly too long. They had also been topped-up with fuel on the start line, a procedure which has invariably gone unpunished in the past. Nevertheless, for this and the other irregularities the Ligier team was fined a total of $20,000.
The decision of the Stewards to impose a fine, rather than outright disqualification, has added new impetus to the appeals which have been placed beforethe FIA by the Brabham, Williams and McLaren teams against the disqualifications of their cars (Piquet and Rosberg from 1st and 2nd in Brazil, Lauda from 3rd place in Belgium.)
As Keke Rosberg said: *"The Appeals Court of the FIA threw us out of the results at Rio even though they couldn't prove that our car was underweight. Yet when they have cast iron proof that two cars were illegal in Detroit, they only fine them..."*

FATE

The Montreal weekend was sombre from the start. Organizer Norman Legault and his friendly staff struggled in vain with constantly mounting problems beyond their control. The weather was worse than expected or hoped for. The Metro serving the circuit went on strike on race day. Jacques Villeneuve, now the centre of the nation's attention as his brother before him, had been unable to find a drive for the Grand Prix. And night after night, television stations showed tributes to Gilles. It had only been five weeks since his death, five long weeks.
Didier Pironi sought to keep out of the public eye. Those final laps of the San Marino GP hadn't pleased the Quebec fans. Lack of information and familiarity with the sport perhaps made them hold those laps responsible for the death of their "Little Prince." Slowly, drawn out by local radio stations, Pironi came out of his shell and with sincerity and severity, stated his case. Equally slowly, the fans began to understand what hadn't been previously clear to them. Meanwhile, newspapers devoted whole pages to Gilles, as though the 1982 Canadian GP was of a different era and of little actual consequence.
Pironi's honest interviews and his pole position lightened the atmosphere somewhat. Only to close down again within split seconds of the start. The Ferrari's clutch bit twice as Pironi waited for the green light. The third time he braked and the engine stalled. All the drivers but one managed to swerve around the motionless Ferrari, even though some banged wheels.
The unfortunate exception was Riccardo Paletti. He was doing more than 100 mph, coming from the back of the grid, when he slammed into the back of the Ferrari. The violent impact destroyed the Osella's monocoque and seconds later, the car burst into flames. Despite the efficiency of the rescue services, he could have survived only by a miracle. Less than three hours later, the young Italian died.
It was a desperate irony that this newcomer should die at a race dominated by the memory of another driver's death. Riccardo Paletti was perhaps not made of the same racing stuff as Gilles Villeneuve — we shall never know — but his death will be felt keenly by motor sports fans throughout the world.
We send our deepest condolences to his family, particularly to his mother who was in Montreal to see him race. And our sympathy goes to the Canadian organizers: tragedy had struck them once and now they had the grave misfortune to be host to another.

G.P.I.

BRABHAM THROWS A DOUBLE SIX



Nelson Piquet, Gordon Murray, Bernie Ecclestone and the BMW engine: the winning foursome.

Shortly before the start of the Canadian GP, the Parmalat-Brabham mechanics were making odds on a likely race winner. Even they seemed to regard their number two driver Riccardo Patrese, with his Ford Cosworth V8 engine, as a more likely bet to win than Nelson Piquet and his BMW-engined turbocar. They were right about their team, which finished a fine one-two, but wrong about which car, for it was Nelson who finished comfortably ahead of Patrese.

by Mike Doodson

In the last 10 laps of the Canadian GP, there were positive signs that Nelson Piquet had the race well under control. When Riccardo Patrese had swooped past the stalled Renault of René Arnoux to take 2nd place on lap 41, Nelson had an advantage of 29 seconds over his team mate. In the circumstances, it was understandable that Nelson — worried about fuel consumption and possible frailities in his gearbox — should permit Patrese with his reliable Cosworth engine to close in on him slightly.

On lap 60, the gap was only 14 seconds. Concerned though he was, Nelson nevertheless is World Champion: he proved it by stretching his lead by a couple of seconds. When he crossed the line his winning margin was 13.8 seconds, making this a handsome victory by any standards.

The Brabham pit exuded confidence, too. Bernie Ecclestone and Gordon Murray had gone, and (unlike at Monaco) they didn't intend to return from their private flight in order to contest the weigh-in, for weight is one area where the Brabham-BMW still gives something away to the other British teams.

The Williams area next door was a more pitiable sight. Keke Rosberg was in gearbox trouble which had sent him plummeting down the lap charts and was to force his retirement with 18 laps to go. Derek Daly in the sister car was doing his best to keep John Watson's McLaren in sight. And the Williams crew had set up their pit apron with spare wheels and airlines, just in case their drivers needed fresh

→

Spot the differences between the BMW-engined BT50 and the Cosworth-engined BT49D.

rubber... as if that would make any difference to their predicament.

No, this was a Brabham day on a circuit which has seen some significant days for the relationship between the team and its Brazilian driver. It was here in 1979 that Nelson found himself leading the Brabham team after Niki Lauda's sudden retirement during practice.In 1980 he had lost the World Championship to Alan Jones after their cars had banged wheels a few hundred yards from the start (a deliberate Jones manœuvre, some would say). And last year he lost his grip on the World Championship, albeit briefly, when rain ruined the chances of the Goodyear runners.

The significance of this year's race was not lost on Nelson as he climbed on to the podium with Riccardo and with John Watson. The champagne ceremony was eliminated, in deference to Riccardo Paletti, but it didn't stop Nelson from posing with that sublime toothiness which he reserves for moments like this. Instead of trying to wear two baseball caps at the same time, he had the Parmalat version crammed on to his head and he held up the gold-braided Goodyear race-winner's cap at head height so that the photgraphers wouldn't miss it. Not difficult to guess which sponsor pays the better money...

There was, however, very little time for Nelson to reflect on what he had achieved that afternoon. Down the steps from the podium he was hurried into a waiting car and rushed to the press room. There he and Watson were asked some particularly difficult questions, to which they replied with good humour. After less than ten minutes, he was hustled out of the back of the room to the car which would take him to the airport for the flight back to London. Even GPI contributor Heinz Prüller and his tape recorder got turned away as Nelson climbed in. *"I'm sorry,"* was all he said as the driver pulled away.

In Munich, this win will be hailed with sighs of relief. It's only two months since BMW *Rennleiter* Dieter Stappert — reportedly with some difficulty — had persuaded his board of directors, outraged by the FOCA decision to boycott the San Marino GP at Imola, to stay in Grand Prix racing. For as Renault will tell you, the road to F-1 success using turbocharging is not an easy one. The unpredictable reliability of the turbocharged engine had been demonstrated yet again this afternoon by Alain Prost, whose yellow turbo-car had produced a huge cloud of smoke as it blew up.

Let's summarise. BMW had announced its deal with the Brabham team in mid-1980, after the cancellation of a previously agreed deal to supply its four-cylinder turbo engines to Guy Ligier's Talbot-supported team. The first Brabham-BMW to appear officially in public had been the BT50 which Nelson practised (but did not race) at Silverstone last year.

The BMW turbocar's race debut had to wait until Kyalami this year... where it had proved blindingly fast in a straight line but much too quick for its brakes. Nelson spun off into the sand, and it was decided by Brabham not to race until the braking trouble (and some handling deficiences) had been sorted out.

A breakthrough occurred two races later when BMW got the special electronic fuel injection — on which they had been working in association with Bosch — to work satisfactorily. But with a win (later set aside) in Brasil, the Brabham people preferred to stick with Cosworth power.

This decision hit BMW hard. The board of directors, with a candour not often seen in GP racing, issued an ultimatum after the Imola fiasco: *"Use our engine — or we will give it to someone else,"* they said. As a result, since Zolder, Piquet has been using the BMW.

As readers of his column in GPI will know, the policy of using the turbo engine has Nelson's full support. With foresight not always vouchsafed to a driver, he recognises that there's no chance of winning races with new technology unless it's been thoroughly tested first under race conditions.

He had even written off his World Championship chances for this year, sacrificing them to his project of gaining, competitiveness in order to be ready for 1983. But with nine points from Montreal — and a possibility of having his Brazil win restored — he may soon be worth taking into the championship reckoning again.

As he had said during practice in Canada, *"we don't really expect to do well with the turbo here or on the tight circuits. I'm looking forward to the quick circuits like Zandvoort and Osterreichring, where we can really use our power. The engine may not have quite as much horsepower as the Renaults or the Ferraris, but the car is lighter and handles better. Even here we set the fastest straight line speeds, about 6 mph faster than any of the other turbos."*

There are, no doubt, more disappointments ahead for the men from Munich and their neat little four cylinder production cylinder block turbo engine. The important thing, however, is that it's no longer a joke in the minds of the public, most particularly of the German public.

Nelson Piquet placed his faith in it more than a year ago. Now that it's paid off for him, he won't relinquish his grip. This could be the start of something big for the amiable Brazilian and his ambitious German friends. □

From non-qualifying to a win in a week: that must be a record.

Chinese puzzle.

Nelson Piquet and Riccardo Patrese held first and second places respectively from the 29th lap to the chequered flag.

EXTRA, EXTRA

PLANS FOR THE FUTURE

The future and a little of the past of Grand Prix racing was under considerable discussion at Montreal. The four "legalists" put forward plans for the modification of the Concord Agreement, while FISA also suggested plans for the future. The drivers, meanwhile, were more concerned with their outstanding fines for their Kyalami strike.

The "legalists" as they are sometimes known Ferrari, Renault, Alfa Romeo and Osella, with support from Toleman and ATS, met with Bernie Ecclestone

on Friday at Montreal to present their concessions to FOCA on current technical rules.

They confirmed their allegiance to the Concord Agreement, but suggested that, as from the Dutch Grand Prix this year, a car's minimum weight at any time and without the driver might be 565 kilos, instead of the current 580. For 1983, the weight limit would fall to 535 kilos. They also suggested a new system of scrutineering checks both during practice and after the race. At the same time, they suggested a partial or total ban on skirts, a limit of 225 litres of fuel, and a maximum race distance of 200 miles or two hours, including warm-up laps. This proposal, said the "gang of four", *"is the maximum we can concede to FOCA."*

The day after these suggestions had been made, Jean-Marie Balestre, put forward FISA's rather different set of proposals. These were intended to put a stop to qualifying tyres, at the same time drastically modifying a Grand Prix weekend's programme of events. This latter point, according to Jean Sage of Renault, would put the mechanics under even more strain than they are currently.

The FISA plan goes like this. Each car would be allowed only six sets of tyres per weekend, two for each day (Friday, Saturday and Sunday). Which set a team used on each day would be subject to a ballot by the local scrutineers.

On Friday, unofficial practice would be between nine and eleven in the morning, with timed practice in the afternoon between 2.30 and five for all cars. Untimed practice on Saturday morning would be from 9.30 to 11.30 for all entries, and then in the afternoon there would be an American-style qualifying session. The entry would be divided into four groups of eight cars, each of which would be sent out at ten second intervals for just seven laps. There would be two warming-up laps, followed by four qualifying laps, and a slowing-down lap. This would take place between 2.30 and five.

There are drawbacks. As Jean Sage said, the mechanics would be working from nine in the morning to five in the afternoon on the track, let alone off it, instead of from 10 to 2 as they do currently. And what if the conditions varied during the afternoon, said the constructors, who were also concerned as to how each group would be made up ?

At first both the "gang of four" and FOCA were surprised at these suggestions, but then the legalists were even more surprised when FOCA appeared virtually to accept FISA's proposals. So Renault, Ferrari, Alfa Romeo and Osella suggested a revised programme for practice: unofficial from 10 to 11, and two timed sessions in the afternoon for 15 cars each, one from midday to one, and the second from two to three.

And the drivers in the form of the PRDA had their say too, but it was about the Kyalami fines. They announced that 25 Formula 1 drivers had put forward a claim against FISA to a Paris court to annul the sanctions imposed on them after Kyalami, and *"restrictions which violate their fundamental rights as drivers."*

As to the various proposals put forward by organisers and teams, the drivers were as confused as the rest of us as to which one was likely to be adopted. However, through their lawyer, Jan Paulsson, they did say that they were hoping to reclaim the Kyalami fines totalling approximately £ 75,000 (£ 2,900 paid by each of 26 drivers) as well as £ 900 pounds lawyers' fees and to claim damages of £ 5,000 per driver.

Elsewhere in the paddock, the "gang of four", still with the support of ATS and Toleman, were confirming that they had no intention of taking part in any other "single-seater championship" apart from that for Formula 1 as defined in the Concord Agreement. It seems that the rumour of M. le President's parallel championship has reared its ugly head again...

D.B.

WATTIE BUILDS ON HIS LEAD

JOHN Watson had set the sixth time in qualifying, behind the four turbocharged cars of Pironi, Arnoux, Prost and Piquet, and the Alfa Romeo of Giacomelli. It was better than usual and promising for a driver who admits to never feeling particularly at ease during qualifying sessions. His "above average" performance was strengthened by the fact that his teammate Niki Lauda was only 11th, and 7/10ths of a second slower.

From the second start, after Paletti's tragic accident, Wattie set off cautiously, but fortune was with him — he was fifth at the end of the first lap behind the four turbos. He held that position for six laps before first Cheever and then de Cesaris got past him, followed two laps later by Patrese. The McLaren was only eighth. Wattie got a place back on lap 19 thanks to Pironi's troubles, the Ferrari T-car being harder to handle and less well set up than the 126C2/057 with which he set pole time and which had the wishbone front suspension.

Then Arnoux spun out of the race, yet again, and Prost's motor exploded, yet again; and John was back to fifth, behind Piquet's dominant Brabham-BMW, Patrese's Brabham-Cosworth, de Cesaris' Alfa and the Talbot-Ligier of Cheever, causing as big a surprise here as in Detroit. The World Championship leader was not being aggressive. He was going to get two points at least if he finished without trouble. On the 66th of 70 laps — 34 laps later — the order was unchanged and we were starting to add up the points: Wattie in the lead with 28 points...

It was too soon. Cheever, who had started with his tanks brim-full (*"and I put a little in my pocket,"* he said afterwards), and de Cesaris both ran out of fuel. The McLaren was an unhoped-for third behind the two Brabhams and John was up on the rostrum again.

With 30 points, he is now 10 points ahead of Pironi — who thus cannot catch him even with a win in Holland — who in turn is closely followed by Patrese, Prost and Rosberg. It's a long road to Las Vegas, but it seemed to us that Wattie's eyes are sparkling a little more than in past seasons.

D.B.

PRACTICE

Since the Canadian GP moved to Montreal in 1978, the organizers have had one idea in mind: get away from the October date, when it is always cold and rainy and may even snow, and get back to June to benefit from the warm Quebec summer and also return to the traditional date of the late 60s. So Norman Legault, the race director-general, was all smiles last year when he announced he has succeeded in making the move.

Indeed, arriving in Montreal three days after the chaotic weekend in Detroit, his determination was understandable. Montreal life is infinitely more pleasant in June, with the hot sun giving a holiday spirit to the city. But Friday morning, the sky was overcast and rain was possible. When the track was opened at 10 a.m. for the first 90-minute session, **Winkelhick**'s ATS, built up on a chassis which had been flown back to England for repair after Detroit and returned the Thursday evening, was not ready. The first good time was set by **Rosberg**, whose Williams clocked a 1'31''047 in the first 30 minutes, just before scattered large raindrops started sprinkling the circuit and the few thousand spectators who benefitted from free entry all day.

One by one, the cars slowly came into the pits and the red flag was put out so that Lees' Theodore, stopped with electrical trouble, could be recovered. When the green flag was waved 15 minutes later, **Winkelhock** was ready. Like the others, though, he had to cope with a second storm and a second break in the session caused by the breakdown of **Piquet**'s Brabham-BMW. No one deigned to try the wet except for the valourous Guerrero who went out with rain tyres, throwing up huge rooster-tails of spray. But the storm passed and the track soon dried, and the drivers went to work again.

Almost immediately, **Winkelhock** and **Arnoux** collided in the right-hander of the chicane on the back straight, as we explain in detail in Paddock. When the wrecks of the Renault and the ATS were brought back to the pits, practice started for the third time, but again rain swept the track and **Rosberg**'s time set an hour earlier was not approached.

When the first one-hour qualifying session was flagged away 90 minutes later, it was still overcast and the track was still very wet at some points, so most of the drivers went out on wets.

The provisional pole position time dropped spectacularly and changed hands frequently as the track dried out: **de Cesaris** did 1'36''367 ans eight minutes later, **Pironi** was already down to 1'31''332. Seven minutes later and **de Cesaris** was down to 1'30''286 when suddenly a huge strom broke. Everybody took cover, and the Friday times were set for good, only a handful of drivers going out for two or three laps on slicks or rain tyres in the final minutes of the session when the worst of the rain had gone. Andrea finally was in front of **Rosberg**, **Pironi**, **Patrese** and **Arnoux**, but the 1981 pole time of 1'29''211 promised big improvements in store if the weather was better Saturday, as the weatherman promised. In the worst trouble were **Jarier**, with rear suspension difficulties, **Cheever**, who lost third gear, and obviusly **Winkelhock** and **Arnoux**. Rene used his T-car and Manfred had to wait while ATS cobbled up the car in a local garage.

Saturday, as promised, there was an immaculate blue sky and it was hot on Ile Notre Dame -- tyre technicians registered 35 degrees Centigrade (95 F) at track level. **Winkelhock** had to sit out the second untimed session, and once again, **Rosberg** was the fastest.

He lapped in 1'28''222, faster than the three turbocars of **Pironi**, **Piquet** and **Prost**. **Patrese** was fifth ahead of an on-form **Cheever**, whose Talbot-Ligier, like that of **Laffite** had an engine cover with lateral air intakes. The day before it had run without rear bodywork. **Henton**'s motor had blown and his mechanics started changing it in the pits during practice, putting the Tyrrell up on stands while Brian went out in the T-car. **Mansell** lost a good half-hour of a water leak from his radiator (*''I'm not using the T-car because it's engine is tired, it's done more than 650 ks''*), and **de Cesaris** had a major ''off'' with the Alfa, causing a long pause in the session to recover it. *''I don't know what happened, the car porpoised violently two or three times and then, suddenly, the left rear dropped, probably because of a failure of the tyre or rim. I just went straight on and couldn't do anything...''*

The Alfa was unuseable for the moment and Andrea ran the T-car for the rest of the day. The session resumed after 20 minutes but **Lees** ran out of fuel and the red flag came out again to move the Theodore from a dangerous position. **Boesel** also ran his tanks dry just before the end of the session. **Arnoux** had done 26 laps without being able to get under 1'30'', having to set up his race car again after its overnight repair from the **Winkelhock** shunt.

Everyone was conscious that the track could be treacherous in the final hour Saturday, despite the blue sky of the morning, and that the grid would be decided then. But the race was quickly decided for **Serra**, whose Fittipaldi caught fire after two laps in the session. There was no spare car.

Watson was the first to charge, while Alfa Romeo was still finishing the set-up of Andrea's car. The championship leader clocked 1'28''625 in the first five minutes, beating last year's pole time. Then it was **Pironi**'s turn and within five minutes he ran off two hot laps -- 1'58''598 and the then a fabulous 1'27''509 at an average of more than 112 mph; **Piquet** and **Watson** at the moment were second and third.

Ten minutes later and **Winkelhock** was back on the track. His ATS had been cobbled together with a plate riveted over the crumpled section around the lower left front wishbone pickup. His aim was to dry to qualify in little less than 30 minutes in a badly set-up car with a shaky monocoque. He failed, but only by 39/1000th of a second.

Prost took up the attack and clocked 1'28''563 to sit behind **Pironi**, but **Arnoux** failed to get the best out of his first set of qualifiers and was well down the field. He asked for a change of springs and once that was done, set a superb 1'27''895. The flag went out and the grid was fixed: **Pironi** on pole ahead of **Arnoux** and **Prost**, while **Piquet** had got into fourth with the BMW-powered car. Four turbos monopolizing the two front rows of the grid and for Nelson, the shame of Detroit wiped out, his BT50 having been 336/1000ths faster than **Patrese**'s BT49. **Giacomelli** was the fastest of the normally aspirated cars while **De Cesaris**, still handicapped by having to use the T-car could not do better than ninth. World Championship leader and Detroit winner **John Watson** was sixth and first of the Cosworths, 722/1000ths ahead of teammate **Lauda**.

In the absence of the Tolemans, 29 cars took part and **de Villota** was the other driver to join **Serra** and **Winkelhock** as non-qualifiers, even though he covered more than twice the distance of the others in the final session, running 24 laps compared to an average of about 11 FFor the field.

Didier Braillon

THE RACE

BMW or Ford power, the Brabham team showed the GP circus the way around Montreal's Gilles Villeneuve circuit last weekend, but it was not a happy win for Nelson Piquet. A horrific startline crash claimed the life of young Riccardo Paletti in only his second GP start.

A bitter wind and leaden grey skies did not bode well for the start of the Canadian Grand Prix being run on the 13th of the month. Everybody was expecting rain to interrupt the race. Nobody had imagined the disaster that was about to unfold. The cars lined up on the grid, the red light went on — longer than usual — *"the longest I have known since I've been in racing,"* said Mansell, and definitely too long for poleman Pironi's Ferrari. It started to creep forward as the clutch picked up. Twice he stopped the car on the brakes, but on the third attempt, as the green lights came on, the temperamental turbo engine died.

The first rows of the grid had little trouble funnelling around the stationary Ferrari, but as the back end of the grid picked up speed, the almost inevitable accident occurred. Boesel clipped the Ferrari, launching him across the track into other cars. Salazar and Lees got caught up in the turmoil, while Paletti, perhaps concentrating on what was going on to his right, drove straight into the back of the stationary Ferrari at a speed well in excess of 100 mph. The damage to the Osella was enormous. While rescuers reached the scene and tried to get him out, the car's ruptured fuel tank burst into flames. The firefighters did a good job trying to keep the flames from the driver and extinguishing them, but it made little difference to the outcome. Paletti died of massive injuries shortly after reaching hospital.

There was little enthusiasm for the race when it was re-started two hours later. Jarier's Osella was withdrawn, while Lees had no spare in which to take the second start, leaving 23 cars under the red light for the second time.

This time it was a clean start, Pironi getting away first while Giacomelli made a great start and began to challenge the Ferrari. But as the light had turned red, his engine had gone onto ten cylinders and he was helpless as the turbos of Arnoux, Prost and Piquet left him behind on the straight.

The race had hardly begun when there was more drama in turn three. *"Salazar drove into the side of me and put me into the barrier,"* said Henton, who stayed in the car as it was being hoisted off the track. He then persuaded the marshals to leave him alone so he could get going again and drive back to the pits for side pod repairs.

Guerrero was also in trouble with a slipping clutch which was to put him out a lap later, while there was plenty of action at the front of the pack. Pironi's engine and spare chassis set-up was nowhere as strong as his race car had been, and on lap two, it was Arnoux who took the lead, Piquet moved into third place from Prost. Behind the turbos, Watson was leading the Ford charge from Rosberg, de Cesaris followed by Cheever. Then came Patrese, Lauda, Daly, Mansell, de Angelis and Laffite.

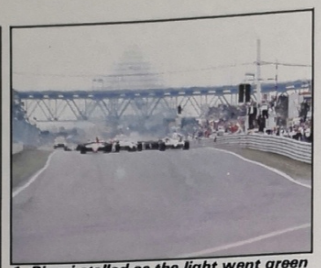
Shortly before the end of the second lap there was another nasty accident as this midfield pack braked for the hairpin before the pits. Mansell's car snapped out of line. He slid sideways into the back of Giacomelli (who was heading for the pits anyway), and both cars flew out of the race. While Giacomelli was unhurt, Mansell broke his right arm when it got caught between the steering wheel spokes.

Laffite's race did not last long. After three laps he felt the car's handling change. After eight laps, he was in the pits complaining that the Ligier was undriveable. Piquet was looking strong in second place, and after nine laps he slipped past Arnoux into a lead which he was never to lose. Arnoux worked hard to stay in touch with the Brabham. Prost was third, but slipping back as his engine had lost its edge. But after 29 laps, the bottom fell out of Renault's race yet again. Arnoux spun and stalled the engine, just as he had at Monaco. Two laps later, Prost was out with a broken engine, promoting Patrese to the back end of a Brabham one-two. And that's the way it remained to the flag, Patrese never getting close enough to challenge his teammate. They finished 13 seconds apart, both drivers cruising in order to conserve fuel.

There was still plenty of drama behind them. Cheever and de Cesaris had made short work of Watson and were having a great battle behind the leaders. De Cesaris finally got past after 25 laps, but he still couldn't shake off the Ligier. Four laps from the end, the duel was resolved as an angry Cheever ran out of fuel right in front of his pit. The car's fuel tank was just too small. *"Two hours hard work wasted for such a stupid reason,"* moaned Cheever. His despair was shared two laps later by de Cesaris and Daly who rolled to a halt, when third and fifth respectively, for the same reason. This was ridiculous. Watson, by now the only other driver on the same lap, had no complaints about his lucky third place. De Angelis led home Surer, both one lap down, while de Cesaris claimed the final point, being classified sixth and two laps behind the leaders.

Pironi's challenge soon faded with several stops to adjust a sick engine and change tyres. Lauda and Rosberg were also out by this time. Lauda retired early on with no clutch, while Rosberg felt he should have quit because the car was porpoising badly. *"But I carried on only to have the gearbox fall apart,"* he said, stopping before the end with only two gears working. Nine cars were running at the finish, but it was the BMW turbo-powered Brabham which held everyone's attention. From non-qualifying to a win in a week must be some kind of a record. With Zandvoort, Brands Hatch, Hockenheim and Osterreichring coming up, there must surely be more wins to come.

Jeff Hutchinson



1. Pironi stalled as the light went green and threw up his arm in warning. Prost led those behind in swerving around the Ferrari. At the back, left, Paletti starts his fatal charge. (Photo: B. Asset).

2. Paletti has cannoned into Pironi, sending him into Lees. In the scramble to get around, Boesel (centre) hit Salazar (right) and their wheels were knocked askew. (Photo: B. Asset).

3. Salazar grinds to a halt along the Armco as Lees will do momentarily, his right front suspension broken. (Photo: First Line).

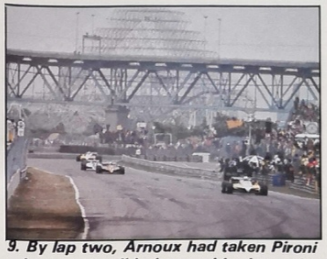
4. The rescue cars swing in around Paletti's shattered Osella and the yellow flags are out around the track. (Photo: First Line).

5. Covered in extinguisher foam, the Osella is winched away under the gaze of the firefighters who tackled the 250-liter blaze. (Photo: First Line).

6. Two hours later, the race started again and Pironi, in his T-car, led from the flag with Arnoux heading the chase. (Photo: DPPI).

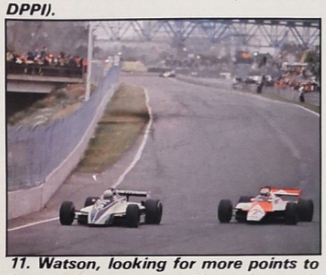
7. Pironi led around the back from Arnoux, Prost and Piquet, but the T-car could not maintain the pace. (Photo: B. Asset).

8. Watson led the second group from Rosberg, the two Alfas of de Cesaris and Giacomelli, Cheever and Patrese. (Photo: B. Asset).



9. By lap two, Arnoux had taken Pironi who was to slide inexorably down the field. Electrical problems cost him three pit stops and three laps but when they were cured, he set fastest lap. (Photo: DPPI).

10. Mansell punted Giacomelli under braking for the hairpin on the second lap. His arm, caught in the steering wheel, was broken by the backlash. (Photo: B. Asset).



11. Watson, looking for more points to increase his championship lead, hounds Patrese. (Photo: DPPI).

12. Cheever drove another excellent race in "old JS17", here scrapping with de Angelis. He looked good for fourth when his fuel ran out four laps from home. (Photo: B. Asset).

13. It was another black day for Renault. Arnoux spun away second on lap 29 and Prost's engine blew two laps later when running third. (Photo: B. Asset).

14. The sleek BMW turbo-powered Brabham showed its pace for the first time, with Piquet easily controlling the race from lap 9. (Photo: B. Asset).

15. Patrese made it a Brabham one-two in the Cosworth car, running strongly but never near enough to challenge Nelson. (Photo: B. Asset).

16. Turbopower put Piquet on the top step but the reliable Cosworth put his teammate one step down and Watson into a 10-point title lead. (Photo: First Line).

Montreal statistics

CANADIAN GRAND PRIX

Date : June 13, 1982
Circuit : Gilles Villeneuve, Montreal
Circuit length : 2.74 miles
Race distance : 70 laps, 191.817 miles
Weather : cold and overcast
Attendance : 47,500 spectators

PREVIOUS WINNERS

(Last five races)

1977 : Scheckter (Wolf Ford)
1978 : Villeneuve (Ferrari)
1979 : Jones (Williams Ford)
1980 : Jones (Williams Ford)
1981 : Laffite (Talbot-Ligier JS17)

STARTING GRID

ARNOUX
Renault RE30B
1'27"509
PIQUET
Brabham BT50 BMW
1'28"663
WATSON
McLaren MP4B
1'28"822
PATRESE
Brabham BT49D
1'28"999
DE ANGELIS
Lotus 91
1'29"228
CHEEVER
Talbot-Ligier JS17
1'29"590
MANSELL
Lotus 91
1'30"048
SURER
Arrows A4
1'30"518
JARIER
Osella FA1C
1'30"717
GUERRERO
Ensign N181
1'31"235
MASS
March 821
1'31"861
SALAZAR
ATS HGS1
1'32"203
HENTON
Tyrrell 011
1'32"325

PIRONI
Ferrari 126C2
1'27"509
PROST
Renault RE30B
1'28"563
GIACOMELLI
Alfa Romeo 182
1'28"740
ROSBERG
Williams FW08
1'28"874
DE CESARIS
Alfa Romeo 182
1'29"183
LAUDA
McLaren MP4B
1'29"544
DALY
Williams FW08
1'29"883
ALBORETO
Tyrrell 011
1'30"146
BALDI
Arrows A4
1'30"599
LAFFITE
Talbot-Ligier JS17
1'30"946
BOESEL
March 821
1'31"759
PALETTI
Osella FA1C
1'31"901
LEES
Theodore TY02
1'32"205

Did not qualify :
Winkelhock (ATS HGS1) 1'32"359
De Villota (March 821) 1'34"045
Serra (Fittipaldi FBD) 1'37"678

PROVISIONAL DRIVERS WORLD CHAMPIONSHIP STANDINGS

(After South Africa, Brazil, USA West, San Marino, Belgium, Monaco, Detroit and Canada GPs)

1.	Watson	1	6	1	–	9	–	9	4	30
2.	Pironi	–	1	–	9	–	6	4	–	20
3.	Patrese	–	–	4	–	–	9	–	6	19
4.	Prost	9	9	–	–	–	–	–	–	18
5.	Rosberg	2	–	6	–	6	–	3	–	17
6.	Lauda	3	–	9	–	–	–	–	–	12
7.	Piquet	–	–	–	–	2	–	–	9	11
8.	Alboreto	–	3	3	4	–	–	–	–	10
	Cheever	–	–	–	–	4	–	6	–	10
	De Angelis	–	–	2	–	3	2	–	3	10
11.	Mansell	–	4	–	–	–	3	–	–	7
12.	Reutemann	–	–	–	6	–	–	–	–	6
	Villeneuve	6	–	–	–	–	–	–	–	6
14.	De Cesaris	–	–	–	–	–	4	–	1	5
15.	Arnoux	4	–	–	–	–	–	–	–	4
16.	Jarier	–	–	–	3	–	–	–	–	3
	Daly	–	–	–	–	–	1	2	–	3
18.	Salazar	–	–	–	2	–	–	–	–	2
	Winkelhock	–	2	–	–	–	–	–	–	2
	Surer	–	–	–	–	–	–	–	2	2
21.	Serra	–	–	–	–	1	–	–	–	1
	Laffite	–	–	–	–	–	–	1	–	1

RESULT

1.	Piquet	Brabham BT50, 70 laps in 1h46'39"577, 107.932 mph	
2.	Patrese	Brabham BT49	13"799 behind
3.	Watson	McLaren MP4B	1'01"836 behind
4.	De Angelis	Lotus 91	1 lap behind
5.	Surer	Arrows A4	1 lap behind
6.	De Cesaris	Alfa Romeo 182	2 laps behind
7.	Daly	Williams FW08	2 laps behind
8.	Baldi	Arrows A4	2 laps behind
9.	Pironi	Ferrari 126C2	3 laps behind
10.	Cheever	Ligier JS17	4 laps behind
11.	Mass	March 821	4 laps behind

Fastest lap : **Pironi**, 66th lap in 1'28"323, 111.691 mph.

F1 CONSTRUCTORS' CHAMPIONSHIP

1. McLaren 42pts - 2. Brabham 30pts - 3. Ferrari et Williams 26pts - 5. Renault 22pts - 6. Lotus 17pts - 7. Talbot-Ligier 11pts - 8. Tyrrell 10pts - 9. Alfa Romeo 5pts - 10. ATS 4pts - 11. Osella 3pts - 12. Arrows 2pts - 13. Fittipaldi 1pt.

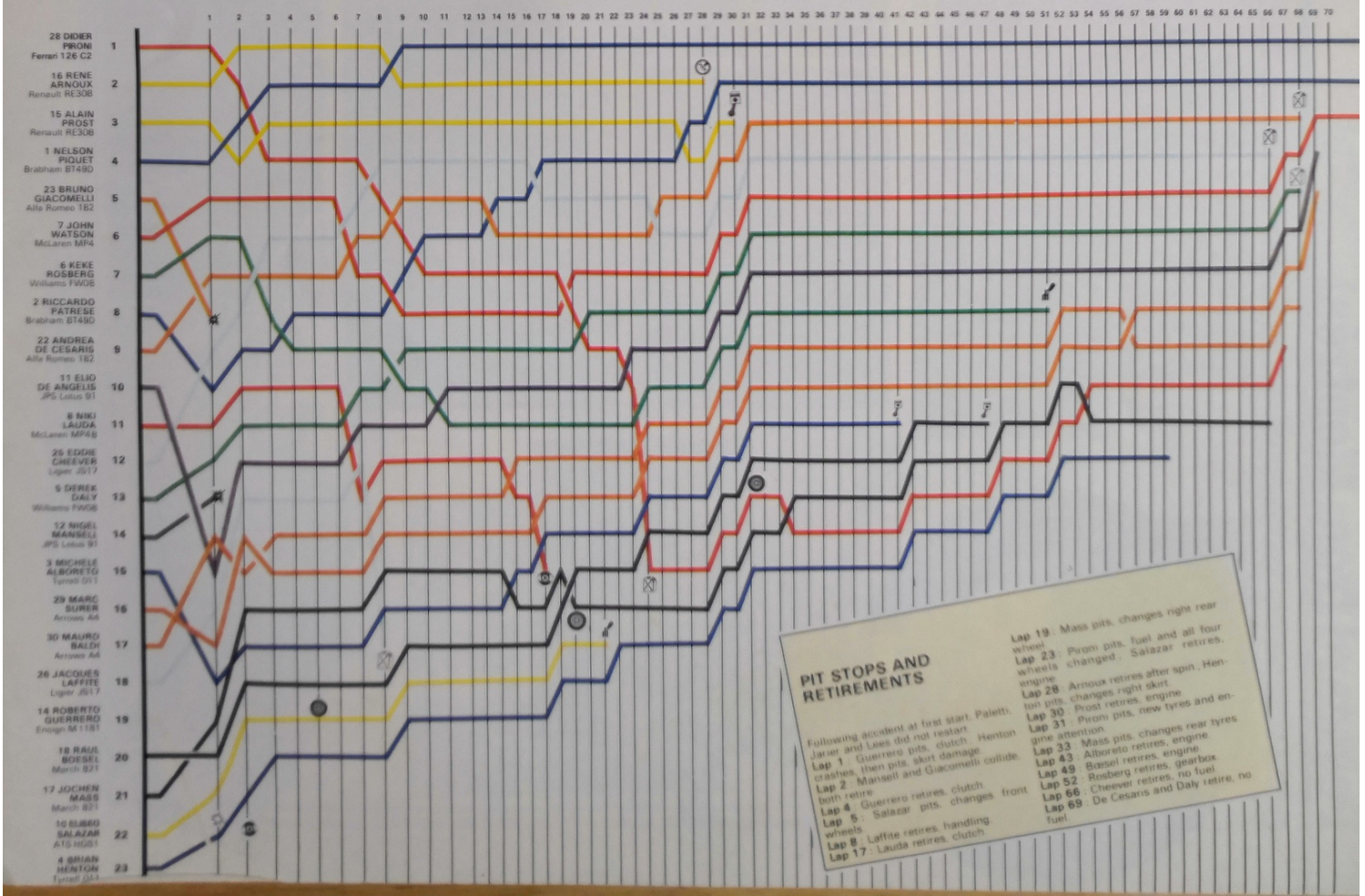
OFFICIAL QUALIFYING TIMES

	Untimed practice 1	Timed practice 1	Untimed practice 2	Timed practice 2
Pironi	1'34"463	1'31"332	1'28"463	1'27"509
Arnoux	1'33"549	1'31"494	1'30"064	1'27"895
Prost	1'34"824	1'32"258	1'29"043	1'28"563
Piquet	1'31"619	1'32"105	1'28"658	1'28"663
Giacomelli	1'40"357	1'33"136	1'29"554	1'28"740
Watson	1'32"196	1'35"027	1'29"387	1'28"822
Rosberg	1'31"047	1'30"963	1'28"222	1'28"874
Patrese	1'31"522	1'31"343	1'29"149	1'28"999
De Cesaris	1'40"155	1'30"286	1'29"366	1'29"183
De Angelis	1'33"686	1'33"242	1'29"251	1'29"228
Lauda	1'35"278	1'32"246	1'30"003	1'29"544
Cheever	1'35"007	1'32"969	1'29"181	1'29"590
Daly	1'32"469	1'31"757	1'30"362	1'29"883
Mansell	1'32"010	1'33"023	1'29"446	1'30"048
Alboreto	1'34"372	1'32"792	1'30"913	1'30"146
Surer	1'33"803	1'36"428	1'31"327	1'30"518
Baldi	1'36"820	1'39"956	1'31"711	1'30"599
Jarier	1'35"433	1'41"588	1'30"137	1'30"717
Laffite	1'38"956	1'33"664	1'30"674	1'30"946
Guerrero	1'35"262	1'36"524	1'32"312	1'31"235
Boesel	1'38"229	1'35"575	1'32"476	1'31"759
Mass	1'34"141	1'33"756	1'31"959	1'31"861
Paletti	1'52"653	1'41"020	1'32"321	1'31"901
Salazar	1'41"490	1'38"542	1'33"112	1'32"203
Lees	1'41"687	1'36"359	1'31"702	1'32"205
Henton	1'33"207	1'39"211	1'30"985	1'32"325
Winkelhock	1'41"108	—	—	1'32"359
De Villota	1'38"460	1'37"409	1'33"509	1'34"045
Serra	1'34"100	**1'37"678**	1'30"930	1'42"730

THEIR FASTEST LAPS

	Time	Lap n°
Piquet	1'29"645	67
Patrese	1'29"156	35
Watson	1'30"377	32
De Angelis	1'31"388	36
Surer	1'31"148	33
De Cesaris	1'29"339	33
Daly	1'30"765	43
Baldi	1'32"173	53
Pironi	1'28"323	66
Cheever	1'29"613	38
Mass	1'32"874	38
Henton	1'31"236	58
Rosberg	1'30"800	47
Boesel	1'33"353	45
Alboreto	1'33"296	30
Prost	1'31"426	30
Arnoux	1'30"139	27
Salazar	1'33"745	28
Lauda	1'33"463	10
Laffite	1'33"718	4
Guerrero	3'07"925	2
Giacomelli	1'40"539	1
Mansell	1'43"786	1

ronde - Lap by lap - Giro per giro - Runde um runde - Tour par tour - Vuelta a vuelt



PIT STOPS AND RETIREMENTS

Following accident at first start, Paletti, Jarier and Lees did not restart.
Lap 1 : Guerrero pits, clutch. Henton crashes, then pits, skirt damage.
Lap 2 : Mansell and Giacomelli collide, both retire.
Lap 4 : Guerrero retires, clutch.
Lap 5 : Salazar pits, changes front wheels.
Lap 8 : Laffite retires, handling.
Lap 17 : Lauda retires, clutch.
Lap 19 : Mass pits, changes right rear wheel.
Lap 23 : Pironi pits, fuel and all four wheels changed ; Salazar retires, engine.
Lap 28 : Arnoux retires after spin ; Henton pits, changes right skirt.
Lap 30 : Prost retires, engine.
Lap 31 : Pironi pits, new tyres and engine attention.
Lap 33 : Mass pits, changes rear tyres.
Lap 43 : Alboreto retires, engine.
Lap 49 : Boesel retires, gearbox.
Lap 52 : Rosberg retires, no fuel.
Lap 66 : Cheever retires, no fuel.
Lap 69 : De Cesaris and Daly retire, no fuel.

Postcard from Montréal

The lovely Rita cheever.

The departed Gilles was everywhere.

The PRDA was in close session

Canadian contrasts to remember.

Love GPI

NIGEL BENNETT: GETTING TO THE BOTTOM RUNG

Roberto Guerrero in Nigel Bennett's creation, the Ensign N181. *(Photo: B. Asset).*

The contrast could not have been more complete. Parked cheek-by-jowl with the Ensign transporter at Zolder was the Alfa Romeo motorhome. The hospitality unit, a tan-coloured palace with tinted glass and angular Italian styling, represented the wealth of a major manufacturer engaged in Grand Prix racing. A striped awning protected the squad of oily men tucking into pasta and wine accompanied by the essentials necessary for the survival of an Italian mechanic. In a separate area, the chef tended a barbecue, throwing on lumps of meat and flicking the waste into a specially prepared mobile trash can.

by Maurice Hamilton

Next door, Morris Nunn, independant constructor, Roberto Guerrero, racing driver, and Nigel Bennett, engineer, had lunch in their rest area -- the back of the Ensign truck. There was no need for a trash can; you don't get much waste from tea and biscuits.

The working lunch over, Bennett returned to the garage to oversee preparation of his creation, the Ensign N181. The team was sharing the double garage with Theodore; two low-budget operations occupying the same space as one well-heeled team. That mattered little to Bennett as he studied the car. He knows every inch, every nut and bolt, having prepared over 400 drawings while bringing his thoughts to life. This is the first car Bennett has been largely responsible for and, while the shortcomings of working conditions at the circuit may not be too serious, surely the financial restraints

Bennett dressed for action at a Grand Prix. *(Photo: DPPI).*

of a small team must have harnessed his work at the drawing board ?

« There were few restraints, certainly as far as the mechanical side of the car is concerned, » says Nigel. *« Of course, we could have gone for a more exotic chassis in carbon fibre, which would have been more expensive, but otherwise the lack of budget doesn't hurt you at all in that area.*

« No, the worst aspect is the aerodynamics. That has become so specialised, you can't design by eye and I hadn't done any wind-tunnel testing for the previous 12 to 15 months. I feel we're really lacking in that department. We had to be conventional and go for something which wouldn't be totally wrong. For example, we couldn't do a complete floor panel beneath the driveshafts, like Alfa have done, because it might not have worked. Only by testing in a tunnel or copying another car where an idea is working well can you avoid taking the risk. »

Taking risks did not form part of Bennett's plan when he sat down to design N181. The prime objective was light weight although he did depart from the norm slightly by producing a chassis, the top half of which is carbon fibre, the bottom, aluminium honeycomb.

« I wanted a honeycomb chassis that wasn't going to give trouble, » explains Nigel. *« The problem is that if it moves at all, it will start to fail so we decided that I had to design a chassis which was, to all intents and purposes, absolutely rigid. I felt it meant using a shape around the cockpit that partially completed a tube in section. And the reason we went for carbon fibre for the top was to get that shape. We couldn't have done it with flat aluminium panels. In fact, it has turned out to be incredibly stiff. It's perhaps a tiny bit heavier than we would have liked but the chassis has turned out to be quite satisfactory. »*

Not so satisfactory have been the team's results this season: Guerrero wasn't permitted to race in South Africa; the new car failed to qualify in Brazil; Roberto redressed the balance with an excellent showing at Long Beach; the FOCA intervened at Imola -- and then came Zolder. Bennett adopts a pained expression:

« Not qualifying at Zolder was an absolute disaster. We really didn't expect that at all. We were running 19th quite comfortably right through but I'm afraid we just didn't improve while running the qualifiers in the final session. We only had about 15 minutes on the track because of a clutch problem but the two sets of qualifiers were only good for one lap and Roberto was baulked each time. »

Perhaps less of a disaster was not qualifying for Monaco. Avon withdrew their tyre support, and Ensign had only old rubber on which to qualify for the 20 car grid. With only Formula 3 experience of the circuit and no new rubber, Guerrero failed to make the cut.

But Mo Nunn is a survivor, and something always seems to turn up. With the help of Bernie Ecclestone, and Goodyear, fortunes were reversed and the Ensign arrived in Detroit with a Michelin contract for the rest of the year. In the one dry qualifying session, Guerrero put himself onto the sixth row of the grid. An Ensign hadn't been that well up for years, certainly not ahead of Brabhams, a Williams, Talbots, a Renault and Watson's McLaren. But as we all know now, Guerrero tangled with two other cars within seven laps of the start, and what might have been

Bennett and Ensign driver, Roberto Guerrero. Bennett says ground effects have meant drivers have less to tell the engineer, because the cars corner so fast. He loved working with Mario Andretti, Ronnie Peterson and Carlos Reutemann. *(Photo: B. Asset).*

Ensign's greatest day ended there and then.

« I'm pleased with the structure of the car, it's given no trouble at all, but, obviously, we are not happy with the results. »

The situation has been aggravated by the team's sponsors, Cafe de Colombia and Caribou Jeans, being based in Colombia. Grand Prix racing is as much a mystery to the Colombians as American football is to the British. Guerrero is expected to win tomorrow; non-qualification causes bewilderment and it is unfortunate that the sponsors are unable to be present to witness the effort put in by Morris Nunn and his smartly turned out team.

The frustrations are far-reaching, of course, although Bennett, who has worked with Lotus in the past, is not dismayed by the problems of working with a small team.

« I enjoy working with Ensign very much although I think there's a happy medium between large and small teams. I would like to see our team running one car and employing about 20 to 25 people. At the moment we only have 12 people. You know, 12 people, three engines -- it's a bit too much of an uphill struggle at the moment.

« We can't afford to test and we have to watch every mile we do with the car. We really couldn't afford to buy tyres in the way we were forced to previously. If we could just crack the financial problem and get enough money to do the job properly for six months then I think we could be a respectable mid-field runner. At the moment it's very hard to get your foot onto the bottom rung of the ladder. »

Bennett got his foot in the door of motor racing through Firestone where he worked in the competitions department soon after it had been opened in Europe in 1967. Prior to that, he had trained in mechanical engineering, building and racing his own car on a typical low-cost, student operation. Nigel became development manager and remained with Firestone until the European operation was closed down in 1975.

Had the experience gained in tyre development helped with the design of the Ensign ?

« I don't think things have changed very much in terms of cross-ply tyres but perhaps I appreciate the difficulties involved in producing and testing tyres more than someone who hasn't worked in the business. People imagine you pour some rubber and nylon into a mould and out comes the tyre. In fact, it's an involved process and you just can't make changes at the last moment.

« However, anyone who has been in the racing business for a while probably understands the mechanical side of tyres although I do think we are all lacking a lot of detailed engineering knowledge when it comes to the performance of the tyres. That's quite a problem. We would like more data from the companies on the performance of the tyres at various slip angles, inflation pressures, down loads, that sort of thing. »

While he was with Firestone, Bennett worked for Bill Shaw Racing and successfully carried out the development work on Brian Muir's British Saloon Car Championship winning Chevrolet Camaro. A brief stay with Hesketh before the champagne dried up was followed by a job at Lotus as team manager while Peter Warr was recuperating from a road accident. When Warr returned, Bennett stayed on as a developement engineer and later ran the engineering/management side when Warr left to join Wolf.

In 1979, Ensign were approached by Unipart with a view to «doing a Williams» and moving Mo Nunn's operation towards the front of the grid. Bennett moved to Walsall with Ralph Bellamy in the autumn of 1979 and work began immediately on the new car. With the Argentine Grand Prix about three months away, it was a tall order as Nigel recalls:

« We had to design and build a completely new car in that time. It was about the fastest a Formula 1 car has ever been produced. Ralph and I decided on the sort of car we wanted and we employed five people to draw it. Ralph did the chassis and the suspension; I did all the bodywork, the aerodynamics and the radiators and we got someone else to do the bellhousing/oil tank. It was a hell of a job actually.

« We had a very good chief mechanic, Gary Anderson, who really whistled round and put it together. We ran the car just before Christmas and managed to get to the Argentine GP. I had done some drawing at Lotus, not very much, and designed one or two cars before that but there was a lot more designing at Ensign than I had ever done before. The knowledge was there but I lacked the experience of drawing racing car bits and pieces even though I had done engineering drawing. It needs time to assimilate what you see on paper into how will actually look in the metal, although you do pick it up fairly quickly once you get going. »

If working on the N180 was a daunting task, surely taking on the latest car almost single-handed must have caused many sleepless nights ?

« It wasn't too bad. I had started quite some time before when I began playing around with chassis layouts in February 1981. It was handy to have the time and check things out and I quite enjoyed it. »

Bennett was responsible for the layout of the car and he produced drawings for the chassis, body, the systems and all the accompanying detail work. Ralph Bellamy did the front suspension detail and Mo Nunn worked on items such as the fuel system.

It's hardly surprising to find Nunn having a say in the design of his own car but how much influence did the Ensign boss have on the design of the N181 ?

« Quite a lot really, » says Bennett. *« He has a lot of experience on the practical side of racing Formula 1 cars. He's a great stickler for engineering detail and his vast knowledge there is invaluable. He's not an expert on aerodynamics or wind tunnel work but he certainly has had a lot of influence on the car. »*

When asked if Mo's experience as a racing driver helped, Bennett smiled wistfully before replying:

« Well, he thinks it does -- but I don't agree. Racing a one-litre Formula 3 car is so different to a three-litre Formula 1 car in 1982 that one shouldn't really draw comparisons -- but Mo likes to. »

Indeed, Bennett asserts that the feedback from Formula 1 drivers has changed over the years. The arrival of ground effects has numbed a driver's sense of feel to a certain extent.

« A driver used to be able to point out what a car did at each corner; describe what happened when you did this with the steering or that with the throttle; give you a clear picture of what occurred if there was a slight bump on the track. Someone like Andretti was fantastic in those days because he had so much experience and so much feel that he could give you very good feed-back. « Once ground effects came in, the driver was not able to tell you much apart from general observations because, basically, the car is in the corner for such a short time. The driver doesn't have time to do much once he's committed and he can only say « well, it oversteers in the quick corners » or « it understeers in the slow ones » or « it leaps about a bit over the bumps » and that's really about it. Unless he's got a lot of experience and can start recalling things he has done with another team which might help -- things such as « well we ran with very solid bump rubbers at this place and it produced that reaction » then I don't think the driver can be nearly as much help as he used to be. »

Bennett and Ensign boss Morris "Mo" Nunn, who has a lot of influence on the engineering detail of his car. But Bennett is less sure than Nunn about how Mo's Formula Three experience as a driver is relevant to modern Formula One. *(Photo: B. Asset).*

Having enjoyed the graphic descriptions from Andretti in his championship year, it comes as no surprise to find that Nigel has a lot of time for the American driver. Looking back, Bennett says he enjoyed dealing with Ronnie Peterson and Carlos Reutemann too.

« I had a lot of respect for Ronnie and, obviously, his ability as a driver. When we had such good cars compared to the opposition, it was very rewarding. Contrary to everyone else's reaction to Carlos Reutemann, I found him extremely easy to get on with, very straightforward. Perhaps it's because we are both men of few words, I don't know, but I enjoyed working with him.

« The one thing about Carlos, though, was his inability to make decisions. We would decide to run tyre A for example. Everyone would agree and ten minutes later he would come up and say « are you sure we should run A ? » I would say « well, what do you think ? » and he'd say « yeah, we run A ». Right, we run A, definitely. Ten minutes later, « maybe B, what do you think ? » So you say « Okay, we'll run B » and he says « I'm not sure... » It could be frustrating at times and amusing at others but he was great to work with. »

When he's not working, Nigel Bennett likes to get airborne in his glider and drift around the skies above his home in the Midlands. Contrary to the sleepy image created by Steve McQueen in « The Thomas Crown Affair », gliding holds a pilot's attention throughout the flight.

« It's fairly busy mentally, » says Nigel. *« If you're flying across half of England then you spend a lot of time worrying about how you're going to stay up there and, if you land, then there's the problem of how you're going to get someone to come and collect you ! But, yes, it's very calm and serene up there after a weekend at the race track. »*

Like Italian wine and English tea, the contrast could not be more complete. □

PATRICK TAMBAY: FOLLOWING GILLES...

Since Patrick Tambay's sudden departure from the world of F1 at Kyalami the beginning of the year, the handsome Frenchman has been re-organising his life. One week before the first CanAm of the year at Road Atlanta, Georgia, Tambay, who had taken up residence in America, moved into a superb property at Rancho Santa Fe, north of San Diego, California. *«We were living like kings,»* he admitted. But the day after Road Atlanta — and Monaco — he received a phone call which was to alter that life.

The call was from Didier Pironi. *«He asked me what my position was with regard to a possible return to Formula 1, and whether the fact that I might replace Gilles Villeneuve might be an inhibiting factor, in both sentimental and psychological terms. I asked for time to think, and reminded him that I was bound by my contract with VDS to race in CanAm.»* But the offer was sufficiently tempting for Patrick to want to learn more. He rang Ferrari team manager Marco Piccinini.

«Piccinini confirmed Didier's offer and asked me to try and free myself of the contract I had with Count van der Straten. But I must say that from the very first, our exchanges were marked by the greatest mutual respect: in both human and sporting terms. That's the way SEFAC works. It's also the way in which they differ from the English-based teams, who seem less embarrassed by emotion when doing business.»

Now Patrick was involved in a telephonic marathon, from Rancho Sante Fe to Texas, the VDS team's base, to Belgium, where Count van der Straten lives, and to Italy, where Piccinini awaited developments.

But Patrick wasn't totally convinced that he really wanted to accept. *«I found myself in a dilemma. I realised that it was amazing that I should be offered a second chance to drive for Ferrari, four and a half years after I'd turned down their first offer.*

«On the other hand, I had to consider both the sporting and technical aspects of Formula 1 as it is today. I decided against driving the Arrows at Kyalami because all the political hassles had just worn me down, so much so that I no longer felt psychologically fit to drive a Formula 1 car. I just didn't want to drive. One hour in the car, working alone, did not balance out the hours and hours of endless political argument.

«That time in the cockpit of the car, alone, was all that kept me in racing; it helped me to endure the rest. But it came to a point where I'd just had too much wrangling.

«It was also very hard for me to accept replacing Gilles. For a while, it seemed that the negative aspects might outweigh the positive. Then I phoned a number of Gilles' Canadian friends to see how they felt. Their attitude was really extraordinary: even though they were still very upset, they persuaded me to accept the offer. So all that was left was to organise another move back to Europe, and to accustom myself to leaving my haven of peace in California.»

Patrick jumped on a plane on Sunday, June 30; the next evening, he arrived in Italy. On Tuesday morning, he went to Ferrari to have his cockpit seat moulded. Then he lunched with *Il Commendatore,* who, despite his obvious grief, gave Patrick a warm and friendly welcome. Finally, leaving the Ferrari mechanics to modify the cockpit to his measurements, and before heading back to Cannes to re-establish his life there, he signed his contract.

On Thursday morning, he was on the road again to Fiorano for his first laps in a Formula 1 Ferrari. He was obviously deeply moved. *«I felt that I was driving under Gilles' shadow, and that everyone there was thinking of him. I drove both on Thursday and Friday, watched by Enzo Ferrari, covering between 60 and 70 laps.»*

«It was quite an experience. They gave me a development chassis, fitted with a new front suspension using upper wishbones, as on chassis 057, which Pironi used at Detroit. The gearbox was also new, and the wheelbase had been changed. But the first thing I felt I had to get used to after my fairly long layoff was the turbo. Not because of its lag, which I found to be much less than I'd thought, but because the power is quite amazing, and it comes in in one big rush.

«The aim of the test was to do as many kilometers as possible so that I would get used to driving the car and could choose the right combination of springs and roll-bars. At the same time, we were testing the strength of certain parts of the car.

«Generally speaking, I was very impressed with the car and I adapted to it relatively quickly, at the same time getting used to the handling and the circuit, which makes many technical demands on the driver.

«Furthermore, the electronic equipment they have there to provide instant feedback is fabulous. There's no doubt that Fiorano is one of the Scuderia's greatest assets.»

Patrick went home just before the Detroit race. He then returned to Fiorano for a more intensive testing programme. From there, it was on to Paul Ricard to test for the Dutch Grand Prix, which will be his debut for Ferrari.

«I couldn't race any earlier because there are only two race cars available after the Zolder tragedy. It would have been almost impossible to ship spares and equipment for two more cars to Detroit and Montreal. Anyway, I think there's a perfectly good moral reason for not running a second car in the Canadian Grand Prix on a circuit named after Gilles Villeneuve.

«Another reason for my late start is that Ferrari himself is very keen for me not to go out and be uncompetitive. He wants me to do as many kilometers as possible before I race.»

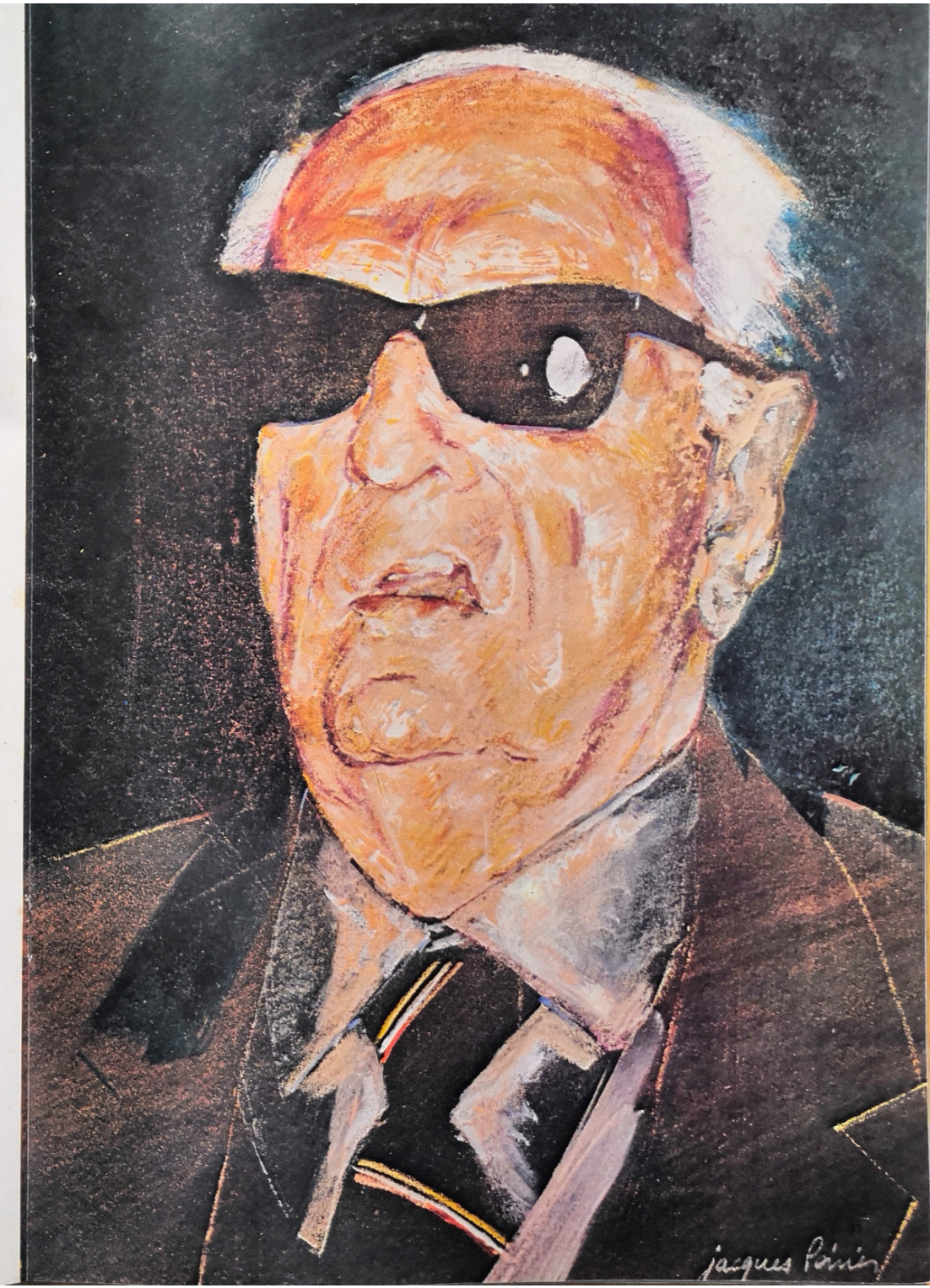
Didier Pironi said at Montreal that the list of candidates for the Ferrari drive was a very short one. *«That's just what they told me, and I think that I was at the top of the list. When Count van der Straten freed me from my contract, I had no further problems. Incidentally, I have no idea who else's name was on that list.»*

We heard rumours at Detroit that apart from Patrick, both Mario Andretti and Rick Mears had been mentioned as possible candidates, as had Alan Jones, who had once been offered a drive for Ferrari. But Mario said that he'd never heard a thing, although he had heard Mears' name mentioned. *«But when I asked Marco Piccinini about it, he burst out laughing ...»*

Reliable sources in Italy say that Tambay's initial tests went as follows. On the first day, he did a 1'08''7 with the temperature at 30 degrees C. A week earlier, Pironi had done 1'08''9 in 24-degree weather while trying out three different types of gearbox. The track records at Fiorano were set before the San Marino Grand Prix this year, when the temperature was a lot lower, 14 degrees. Villeneuve did 1'07''7 and Pironi did 1'08''00. While admitting that *«it's very sad to have got the drive in such unfortunate circumstances,»* Patrick is totally committed to one aim: to show his real value. Even though it is six years since he first drove in Formula 1, his record is not a great one, and the reactions from other drivers at Detroit were not all approving, many feeling that the intense political pressure at Ferrari would take its toll of Tambay, as it had of many others.

But as Tambay said: *«all I want now is to be left to get on with the job in peace.»* Message received, Patrick, and we'll see you in Zandvoort on July 3.

Didier Braillon



SAFETY: EVERYONE TALKS ABOUT IT

A month after the fatal accident to Gilles Villeneuve, there are no clear indications of any measures to improve safety in Formula 1. When FISA this year introduced a series of new rules governing safety, including the famous «survival cell» (they should have been put into effect in South Africa, but at Kyalami no less than five teams — Williams, McLaren, Arrows, Osella and Ensign — had not conformed, and the scrutineers, with extraordinary lack of seriousness, postponed the whole question until Brazil), we promptly noted (GPI n° 44) that the proposed measures were no more than a palliative and that the most important task was to reduce cornering speed. That speed has steadily increased: partly through greater power and partly through the greater downforce produced by wing-cars, not to mention the constant lightening of the cars.

Villeneuve's accident showed in striking fashion the risks involved in the use of super qualifying tyres; they have resulted in drivers staking their all in three or four timed laps for each hour of timed practice. But each set of these highly-sophisticated qualifiers lasts at best two laps, which compels drivers to attempt impossible overtaking manœuvers in order not to waste those laps and the tyres.

That qualifiers are extremely dangerous is recognized by all. Less recognized is that these tyres also impede technical progress and turn practice into nothing more than a huge gamble.

The FISA President and all the major tyre manufacturers are in agreement that such tyres should be banned.

Let us try to see how FISA could improve safety in Formula 1, with special attention to the suggestions made by drivers and engineers.

Prohibition of qualifying tyres -- Qualifying tyres should be phased out in the very near future. All agree. To reduce cornering speed, it might also be wise to put a halt to the every growing sophistication of tyre construction itself, either by reducing their width (in this connection, Pirelli will be using a 15" tyre in Montreal) or by returning to tyres with treads.

Reducing ground effect -- Current Formula 1 cars corner too quickly, and not merely through their increased power. Aerodynamic research has made great strides in the last three years: after all, not long ago in a 220 kph curve a tyre could take a load of 800 kg; now it can reach 1,300-1,400 kg. Thus, the efficiency of the downforce must be reduced: either by diminishing the section of the Venturi tubes (which would be hard for the scrutineers to verify), or by reducing the maximum length of the current miniskirts by a considerable amount. It would be a mistake, however, merely to limit the size of the wings, which would simply emphasize further the importance of downforce and, should a mini-skirt break, would give the car further lift.

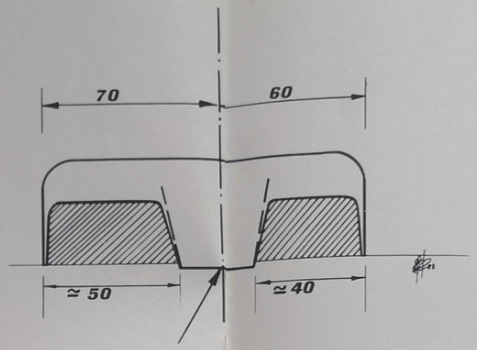
Returning to suspensions -- Closely linked with the ever-increasing importance of aerodynamics is the question of the absurd rigidity of current suspension systems. There was a time when designers worked with great care on their suspensions; now suspensions are only important insofar as they do not disturb the aerodynamic flow — in short, make them as hard as possible. The consequence is difficult steering and driver fatigue that can only contribute to greater risks.

Limitation of fuel consumption and weight -- There is not doubt that the arrival of turbo-powered cars has greatly increased the power available. A well-thought-out reduction in fuel capacity would compel designers to find a more sensible fuel/power ratio. There is equally little doubt that the mad race to lighten the cars has added to the inherent danger of racing. Firstly, each kilogram saved increases cornering speed; secondly, it has contributed in no uncertain fashion to cost-inflation. Two years ago, a good chassis might cost $ 80,000 tp $ 100,000; today a carbon fiber body runs to $ 600,000. The most dangerous aspect of weight-reduction is that it leads to a high level of technical sophistication in design and constant changes in parts, both beyond the means of many teams.

Greater driver protection -- Measures taken at the beginning of the year have certainly helped, but there is still much to do. Especial care should be taken to protect the driver in case of head-on collisions. There should also be stricter regulations governing the construction of roll-bars and safety-belts. The minimum dimensions of the chassis should also be increased. This latter measure would not only increase driver safety but would also have a corresponding negative effect on the efficiency of the cars, by diminishing the Venturi tube sections which cause the downforce.

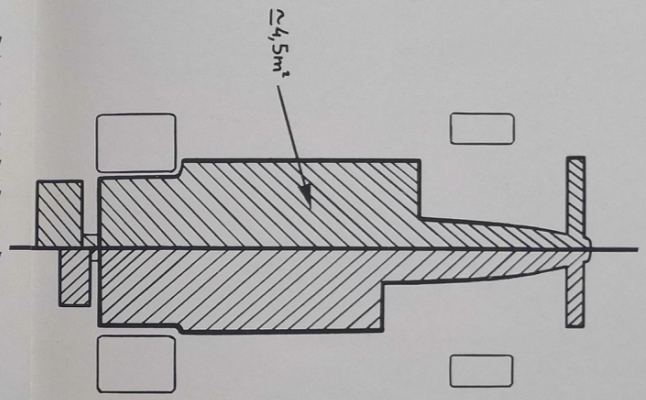
The Executive Committee of FISA meets on June 22nd. It is to be hoped that good sense will prevail and enlighten those who rule in Formula 1.

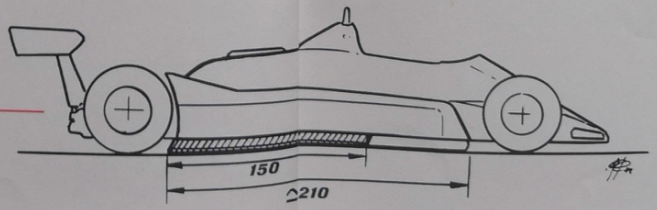
Giorgio Piola



One of the suggestions is for a reduction from 140 cm to 120 cm in the maximum width of the car between the front and rear wheels, although this could pose some problems for turbo teams who usually put their heat exchangers in the sidepods. But such a step would mean narrower sidepods and thus a reduction in venturi ground effect.
The left side of the drawing shows the current dimensions and the right side the proposal. To prevent teams again producing ground-scraping bodywork, it would be useful to oblige them to have the bottom of the monocoque lower than the lowest level of the sidepods to which skirts are fixed, as the arrow shows on the drawing.

Another solution: reduce the ground effect by reducing the plan area of the cars (the area they 'shadow' on the ground). This area is currently 4.5 square meters, and it would be desirable to reduce it to 3.5 sq.m. It is, however, difficult to scrutineer. A modification of only a few square centimeters in the plan area, which is impossible to detect without complicated calculatins, is enough to increase the ground effect considerably. There would have to be semi-permanent inspections... The same result can be achieved by reducing the area of the wings and the length and width of the sidepods — but several cars already run without front wings.





There is a simpler system which, more over, could be put into effect immediately: limit the length of the skirts to 150 cms, leaving the designers free to put them where they wish on the longitudinal axis of the car. But in our opinion, this would not be enough. It would have to be associated with a mandatory flat-bottom monocoque, lower than the sides of the pods, to avoid a return to the hydraulic suspensions which allowed the bodywork to scrape the ground.

RACING

Speed, noise, action: that's what motor racing is all about, and we think this artistic shot conveys all that atmosphere. For nearly two hours, Riccardo Patrese skimmed the kerbs and kissed the barriers in his Brabham BT49B as he strove to join his turbo-powered teammate on the rostrum. *(Photo: First Line).*

ALFA FOR EFFORT, BETA FOR RESULTS

The Alfa Romeo drivers consistently show themselves to be competitive in practice, and even in the race, but they have yet to gain a really positive result. Once again, in Montreal, they were well-placed at various stages of the week-end, but Andrea de Cesaris gained a meagre point after running out of petrol when third, and Bruno Giacomelli was involved in a nasty accident with Nigel Mansell after starting from a promising fifth on the grid. (Photo: B. Asset).

ANOTHER TRAFALGAR

Renault, the favourites for the title at the start of the year, have had 16 starts this season, yet have only reaped 22 points from three top-six finishes. Since Kyalami, a Renault has been on pole-position six times, but recently each race has become a disaster. Like Alfa Romeo, accidents and mechanical failures have cost them dearly. How much longer... (Photos: B. Asset).

HAIRPINNED

It was under braking for the hairpin on the second lap that Mansell's Lotus took out Giacomelli's Alfa Romeo, under the startled eyes of Bakli, de Angelis and Laffite. Nigel's arm was trapped in the steering wheel and was broken when the wheel kicked back violently. He will be out for several races. (Photos: B. Asset).

CROSS !

"I had a full tank and a few liters more in my Nomex," joked Eddie Cheever, half in sorrow and half in anger. His Talbot-Ligier ran out of fuel five laps from the finish and deprived him of three extra points. (Photos: B. Asset).

PIRONI'S LATE CHARGE

Didier Pironi lined up for the second start in the spare Ferrari, fitted with top rocker arms unlike the wishbones of his race car. From pole, he soon dropped back with electrical problems which took three pit stops to cure. He unlapped himself by passing leader Piquet twice, setting fastest lap after putting on new tyres, but still finished ninth, three laps behind. (Photo: B. Asset).

MANFRED WINKELHOCK

Manfred "enjoyed myself like crazy in the rain, slidint everywhere" in the streets of Detroit.

He is said to be German to his fingertips, to be ready to drive anything in any conditions, a sort of badly-paid, brainless modern mercenary. The picture is false. After his excellent drive at Detroit, we talked to a simple man, sensitive and reserved underneath a misleading exterior, in part imputable to the lack of warmth of his native language.
Manfred is a thinking driver, like the others, possibly even more than the others. His only irritating side is that he seems to have a blind confidence in his own ability. But he is so fast, and has such a spectacular style, that he really can be excused.

by Didier Braillon

Manfred Winkelhock's biography hadn't really circulated widely in the press before Detroit, and few journalists knew that the German, born in 1952 in Berglen-Steinach near Stuttgart, where he still lives, was married to Marina with a two-year-old son.
The story goes that when he did the fastest time in the warm-up at Detroit and his name came up at the top of the television timing monitor screens in the pits, Frank Williams tried conscientiously to adjust his set, believing it was stuck on the second half of the grid. One of our colleagues told Manfred the story, and he is still laughing:
"Everyone was surprised but I was partially expecting it. The car was excellent, the suspension, brakes and gearbox were a real dream. We did a lot of excellent work with Alistair Caldwell and Donald Halliday, concentrating, from session to session, in resolving one problem at a time. And we had achieved absolutely fabulous roadholding in first and second-gear corners."

That Manfred should be fifth on the grid, third in the rain and fastest in the warm-up was the more surprising to some observers because his team-mate Eliseo Salazar, the revelation of last season, was way back in the pack.
"In Detroit, Eliseo's car was horrible and in despair he had to race the T-car. The problem came from an operating fault in the right front suspension which we discovered later. Apart from that, our cars are identical. It makes me

He's happy in the pool, too, wherever he can find one.

Windelhock ha starred in Capris and BMW's. Ralt and March F2 cars hand this year in F1 and the new Endurance championship.

the more pleased because, since the beginning of the year, I have always been quicker than him, except for one session at Kyalami where he had soft tyres and I was restricted to using hard rubber."

That Winkelhock should beat Salazar, okay, but that an ATS can, even for an instant, be at the level of Renault, Williams, Ferrari and Alfa Romeo, is even more surprising to some observers.

"Not at all," says Winkelhock. *"The ATS isn't as bad as all that and in my opinion, Gunther Schmid's biggest problem last season was signing Slim Borgudd. He really was far off the pace. For example, there was the test session I was called to in the middle of last season at Silverstone. The car was terrible, totally off its settings, and in spite of that, after five laps I was almost a second quicker than him.*

"This year we get on well with Eliseo and Alistair Caldwell has the right qualities to do a good job. In Monaco our progress began to be apparent, largely thanks to the assistance Michelin gave us. Earlier, with Avon, we had enormous oversteering problems.

"Now the balance is perfect and the car is very easy to feel; the slightest reactions of the suspension are 'telephoned' direct to me and I understand exactly what is happening."

Manfred's career in single-seaters started abruptly. He won the German Group 1 Scirocco cup in 1976 then joined the BMW Junior Team in 1977, driving Group 5 320s in the German and World Championship. Without any single-seater experience, BMW pushed him into the March Formula 2 team with Giacomelli and Surer.

"It's often said that my first season in 1978 wasn't good, but I don't agree; Bruno and Marc were experienced, I wasn't. I had never sat in a single seater and I had a lot to learn. I was too 'hot', too aggressive, too anxious to do well, but my eighth place in the European Championship left me well satisfied."

The following season, however, was a letdown. *"I was supposed to drive a works March again but I didn't know until two days before signing the contract that it wasn't possible. I didn't have the time to do anything because all the seats were taken. I concentrated on the German Group 5 Championship with Schnitzer and I only ran Formula 2 at the Nurburgring with Manfred Cassani's old Ralt RT1."*

In 1980, Winkelhock came back to Formula 2 full time with the backing of the DVF driving schools. But things went from bad to worse.

"I had a shunt with Serra at Thruxton and I was pushed off by de Cesaris at Hockenheim when I was leading. At Nurburgring I had that famous accident when I should have won. After that, nobody would help me any more."

After an intermediate period with the Ralt RT4 of Bertram Schafer (*"he hadn't dared ask me to drive it because he thought I'd never accept"*), his big chance came with Maurer, who signed him on from Spa onwards. Manfred showed he was at least as aggressive as his teammates, Guerrero and Elgh, finishing the season with a pole position at Donington. His single seater career was off again.

So Manfred joined ATS. He wasn't paid, but he didn't have to pay to drive either, the small support from Liqui Moly not being judged by Gunther Schmid to be significant. *"I was advised not to drive for ATS. I was told that Borgudd had never been above 20th on the grid and that the car was bad. But I went to the races and I watched everything, particularly the way the team worked. When I went to the factory in England and I talked to Alistair, I knew that if we worked hard we could get good results."*

Winkelhock's season started with the drivers' strike at Kyalami. It didn't help his debut in the Formula 1 world.

"I was able to get to know all the other drivers very quickly because we spent the night together! Striking was my only chance to be accepted, but in fact I didn't really want to do it. It was when I saw them all get into the bus that I called Lauda to tell him that although I was new and that it could be dangerous for me, I wouldn't break away. In fact I'm not a striker at heart and I have the feeling that the decision was taken too quickly, before we had discussed our problems. And I was relieved to get back to the circuit on Friday because, for Gunther Schmid, I was only a new driver, an interchangeable pawn without any experience. He could have fired me immediately, and when we came back, the atmosphere was very tense. That said, I don't want it thought that I simply followed the herd. I'm a member of the PRDA, I've paid my subs, and safety problems concern me intimately. We have to talk to the constructors and the circuit owners so that fatal accidents can be avoided, they are the worst things that can happen for the image of Formula 1.

"The current cars are too fast. The public doesn't come to see us brake 20 meters later or go through corners at 250 kph that we went through at 210 kph a year ago. They don't see the difference and the only thing that is important to them is to see good scraps and to find a champion.

"We must be given back the possibility of trying to keep control when something happens with a car in the middle of a corner. At the moment we are powerless passengers in cars running on rails. And if we go off the rails, it's finished. It's too late to do anything but close your eyes.

"Another problem is that the GP cars are not fun to drive. The pleasure doesn't necessarily come from pure speed. At Detroit, I enjoyed myself like crazy in the rain, sliding everywhere. I was more than 20 seconds off my best time in the dry, but that was totally unimportant, and I'm sure the fans loved it."

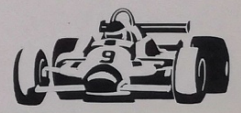
Fearless, Manfred?

Perhaps, and his reaction to his fantastic back somersault at the Nurburgring in 1980, when his March went flying off a bump for aerodynamic reasons, shows it:

"When I saw the film of the accident on television, I felt a bit pale because I hadn't realized it was so terrifying. But at the time I hadn't been at all afraid. I was called a dangerous madman who didn't care for his life. Truthfully, my only reaction was to be furious because a magnificient victory which had been in my grasp had so brutally escaped me. Solely that and nothing else..."

Does that make you think of someone else?

□



NELSON'S COLUMN

The last lap at Montreal was the most worrying of my life, I think. It seemed that all around the circuit there were abandoned cars, with angry drivers climbing out because they had run out of fuel. I had a comfortable lead over my team mate, Riccardo Patrese. For the first time in four race meetings I was having absolutely no trouble with my BMW turbo-car. Yet it was only when I crossed the line to win the Canadian GP that, I knew I wouldn't be another bloke whose fuel had run out.

What a contrast with the Detroit GP one week earlier this was! In Detroit we failed to qualify, but although I promised that I did not intend to be a spectator again at Montreal, I scarcely expected things to go so well for me in Canada as they did.

After all the setbacks we've had with the BMW engines, sometimes it's me who has to cheer up the German engineers who travel with us to the races. Paul Rosche, for example, who has worked on the turbo engine for several years now, is one of the world's very best engine men. His department has built well over 500 Formula 2 BMW four-cylinder engines, and they're still beating the Japanese V6 opposition.

But Paul always gives the impression that he expects his F1 turbo engine to blow up on the first lap. Although I'm sure he doesn't really mean to be so miserable, sometimes I have to persuade him that I really believe in his engine. I think that Sunday's result may have helped to convince him that all those years of turbo-development were worth the trouble.

In qualifying, we seemed to have the car well sorted. No serious problems with brakes. The softer Goodyear tyres felt as though they would work just as well on our car as on the lighter Williams. We managed to qualify on the second row, right up there with the Ferrari and the two Renaults.

Personally, my greatest worry was the gearbox. Because the turbo-motor produces its power so suddenly, we had transmission trouble at Zolder, Monaco and Detroit. For the Canadian race, we thought that a ratio or the differential would be weak links.

As it happened the transmission survived two standing starts much better than half a dozen other cars. By the end of the race my thoughts were concentrated entirely on the fuel : just to be sure that the engine would survive, we had slightly richened the mixture. Our calculations said that we had enough on board to go the distance... but of course a driver worries about things like that.

There is an enormous amount of satisfaction in winning a race when you're doing something new. As you know from reading this column, I have had faith in BMW's ability to make their turbo a winner ever since I first drove it. I've shared the setbacks with the BMW people: now we had a chance to share the glory even though it was two o'clock in the morning in Munich when I crossed the line.

At the end of the race, there was a moment when I hit a kerb rather hard. The car jumped in the air and landed heavily. Unfortunately, the incident was seen on TV by millions of people (including my crew, who had a TV in the pit lane) who must have imagined that I was pushing the car too hard. In fact, by then I had been cruising for a long time. I simply lost concentration for an instant and only remembered the incident when someone mentioned it at the post-race press conference. I'll try not to do it again chaps, now that I know how nervous it makes you all...

In the happiness of winning, it would be wrong not to mention the incident which shadowed the race. Although I hardly knew Riccardo Paletti personally, I was shocked and saddened to learn that he had lost his life. Like the rest of us, he knew what he was doing and he accepted the risks. I sincerely hope that that knowledge will help to comfort his family at this time. □

Cockpits

ALFA ROMEO

182/1: Bruno Giacomelli (I)
182/4: Andrea de Cesaris (I)
182/3: T-car.

Still no car in the B configuration. Andrea de Cesaris crashed Saturday morning because of a sudden failure of the left rear rim or tyre and had to use the T-car for the second qualifying session.

ARROWS

A4/1: Marc Surer (CH)
A4/2: Mauro Baldi (I)
A4/3: T-car.
No changes.

SEFAC FERRARI

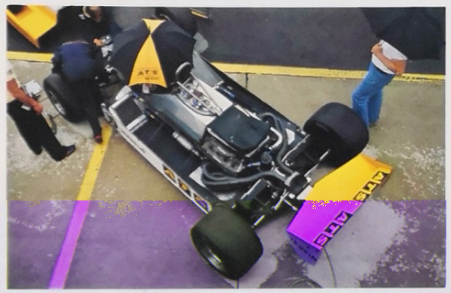
126C2/059: Didier Pironi (F)
126C2/057: T-car
No changes, the 057 still carrying the new suspension which uses upper wishbones instead of rockers.

BRABHAM

BT50/02: Nelson Piquet (BRA)
BT49D/18: Riccardo Patrese (I)
BT50/03: Piquet's T-car
BT49D/16: Patrese's T-car

Patrese's BT49D/17 chassis was sufficiently badly damaged in the seventh lap accident in Detroit to be unrepairable on the spot: it was stripped and chassis BT49D/18, which had been brought to North America in a container, was built up, when the transporters arrived in Montreal, to be Riccardo's race car.

The only other change was that Piquet also had carbon fibre brakes, which he had not used in Detroit.



ATS

HGS1/01: Manfred Winkelhock (GER)
HGS1/04: Eliseo Salazar (CHI)

Chassis HSG1/03 damaged by Winkelhock on the second lap of the Detroit GP was not repairable on the spot because it was badly ripped around the front right suspension points. It was completely stripped and packed in a container. Salazar, who started in Detroit in the T-car HSG1/01 because of the very bad roadholding of his regular HGS01/04, was back to the usual car for Montreal, much to his chagrin. He had a heavy "off" with the T-car in Detroit and it was flown back to Britain for repair, arriving back at Montreal's Mirabel airport only Thursday night. The mechanics worked an all-nighter so that Manfred could use it from Friday's untimed session. They almost made it, Winkelhock going out on to the track half way through the session -- only to tangle violently with Arnoux 50 minutes later. The chassis was ripped at the left front suspension pick-up points and, with admirable courage, all the little ATS team slaved away in a Montreal garage to try to repair HGS1/01 with whatever came to hand. It was only finished at the 22nd minute of the final timed session and Winkelhock failed to qualify by 34/1000ths of a second.

Cockpits

ENSIGN

N181/1:
Roberto Guerrero (COL)

The tight deadline of our Detroit edition, so that it would be available in Montreal, caused an error which dropped Ensign from Cockpits. It was the more regrettable as we had stressed that, following a request by Goodyear, Bernie Ecclestone and Renault, in agreement with the other teams under contract, Michelin equipped Morris Nunn's team at Detroit for the first time. That brought the number of Michelin equipped teams to 11. There were no changes to the N181 in Montreal.

FITTIPALDI

F8D/3: Chico Serra (BRA)
No change, and no T-car. Serra failed to qualify after only being able to do two laps on Saturday afternoon. His car caught fire in the long corner after the pits and was very badly damaged.

MARCH

821/RM08: Jochen Mass (GER)
821/RM09: Raul Boesel (BRA)
821/RM10: T-car
821/RM07: Emilio de Villota (SP)
No changes.

LOTUS

91/6: Elio de Angelis (I)
91/7: Nigel Mansell (GB)
91/9: T-car
No changes.

MCLAREN

MP4B1/05: John Watson (GB)
MP4B1/04: Niki Lauda (A)
MP4B1/06: T-car
No changes.

OSELLA

FA1C/04: Jean-Pierre Jarier (F)
FA1C/02: Riccardo Paletti (I)

As FA1C/3 was very badly damaged by Paletti in Detroit, he used the regular T-car in Montreal, no other reserve car being in race condition.

RENAULT

RE30B/6: Alain Prost (F)
RE30B/7: René Arnoux (F)
RE30B/5: T-car

No changes, the team only having sought to find the reasons behind Arnoux's sparkplug problem and Prost's injection pump difficulties in Detroit.

TALBOT-LIGIER

JS17/02: Jacques Laffite (F)
JS17/04: Eddie Cheever (USA)
JS19/01: T-car.

Cheever's car had a new electronic injection system and shorter intake pipes. As in Detroit, the JS19 never went onto the track.

THEODORE

TY02/2: Geoff Lees (GB)
No changes to the cars. Geoff Lees replaced Jan Lammers, whose thumb, broken in Detroit, was still in plaster.

TYRRELL

011/3: Michele Alboreto (I)
011/4: Brian Henton (GB)
011/2: T-car.
The new monocoque which Alboreto used at Detroit is in fact officially numbered 011/3 and not 011/6 as we said. It is a chassis which had been built during the winter and had never previously been used. It was strengthened around the suspension pick-up points before being sent to North America.

WILLIAMS

FW08/4: Derek Daly (IRL)
FW08/3: Keke Rosberg (FIN)
FW08/1: T-car
No changes.

RICCARDO PALETTI

Before the Canadian GP, Riccardo Paletti had been despondent about his first season in F1. In spite of his own hopes, and certain promises, he had been having as bad a time with the Osella team as his fellow-countryman and predecessor, Beppe Gabbiani.

There had been a note of optimism in Montreal, however. Some new tyres from Pirelli had helped to make his car much more driveable than it had been earlier this season. A week previously at Detroit he had scraped on to the grid, only to lose a wheel in the Sunday warm-up. Here in Montreal not only had qualified but he also told friends that he was looking forward to getting some racing miles covered at last.

Sadly, that ambition and many more were destined not to be fulfilled. In the startline incident, Riccardo Paletti failed to notice until too late that Pironi's Ferrari had stalled in front of him. Having qualified eleven rows behind Pironi, the inexperienced youngster was unable to react as fast as those ahead who swerved out of the way. He struck the Ferrari nose to tail at a speed estimated at more than 100mph.

First on the rescue scene was Pironi, who realised that he could do nothing. When spilled fuel violently caught fire, there were some moments of heroism both by fire fighters and by Pironi. But although Niki Lauda criticised the slowness in getting the major extinguishers to the scene, it seems that nothing could have been done to save Paletti.

It took nearly 30 minutes to extricate the 23-year-old Milanese from his car. A helicopter took him to hospital, accompanied by his mother, Signora Ginna Paletti. He died about three hours after the crash of massive injuries to the neck and thorax and without regaining consciousness; all but a few of the drivers who went to the restart two hours after the accident were unaware of his condition.

Paletti did not have a distinguished record in racing yet. Bookish looking and shy, he spoke of an association with fast cars which went back to a day when his father let him try his Ferrari road car at Monza — and discovered that his son was quicker than he was!

He did some Italian F3 races before switching to the European F2 series. Driving for Mick Earle's Bognor-based Onyx Racing Team, he got some good points in the championship before taking Gabbiani's place at Osella earlier this year, with an infusion of Pioneer Hi-Fi money. Knowing that he was not going to get much testing and would have spare time on his hands, he had started a property business alongside his father's to occupy himself.

Osella had barely been in a position to give Paletti, as number two driver, the sort of opportunity which he might wish. He had only got on to the grid once before Montreal: at the Imola "boycott" race he had qualified 13th but retired with broken rear suspension after only eight laps.

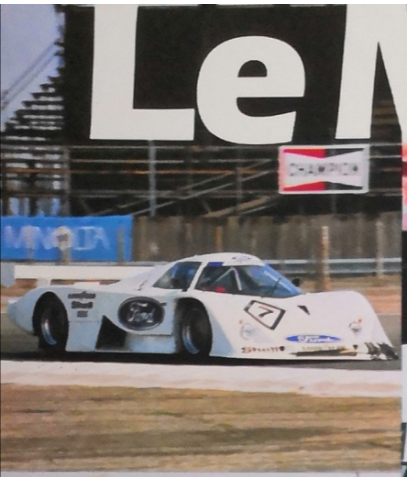
A pale, thin young man who wore spectacles, Paletti was liked by those who knew him. Enzo Osella withdrew the other team car of Jean-Pierre Jarier from the Montreal race as a mark of respect for his young driver.

MGD

Black Power

John Player Special King Size

Le Mans means action



SPECIAL LE MANS 24hr ISSUE JUNE 29th.

Order your copy from your local newsagent £2.

Grand·Prix
international

6 York Street, London W1. Tel: 01-486 1277

MORE FORMULA ONE TEAMS USE VALVOLINE THAN ANY OTHER MOTOR OIL.

Nelson Piquet / Team Brabham
1981 Formula One World Champions

There's a good reason why more Grand Prix teams choose Valvoline® Racing Motor Oil. Valvoline gives them the kind of protection that keeps their engines running smooth and cool — on the world's most demanding circuits.

You, too, can get the same kind of engine protection for your everyday driving.

Because Valvoline is not just for winning races.

There's a Valvoline® Motor Oil for every kind of car and every kind of driving.

Valvoline.®

Winning the world over since 1866.

Valvoline Oil Company, Lexington, Ky. Division of Ashland Oil, Inc.

Enjoy the gentle pleasure of Silk Cut.

The international choice in mild cigarettes.

SDC1

Rothmans
KING SIZE
BY SPECIAL APPOINTMENT
FILTER TIPPED
ROTHMANS OF PALL MALL LONDON EST 1890
WORLD LEADER
Wherever excellence is a way of life, the swing is to Rothmans King Size.
Rothmans extra length, finer filter and the best tobaccos money can buy
give you true King Size flavour. Rothmans King Size really satisfies.
THE GREATEST NAME IN CIGARETTES